

The Leveraged Management Buyout.
Concept, nature, macro- and microeconomic factors and take-
over models in the UK and Germany and the development of
LMBO company performance in Germany
under difficult economic conditions

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Abstract:

This is a five-part study of leveraged management buyouts. It examines the nature of these transactions and evaluates the difference in the development of LMBO activity in the UK and Germany. This study (i) provides evidence on how the development of specific macro- and microeconomic factors as well as the legal and tax environment have influenced LMBO activity in the UK and Germany; (ii) examines and compares the post-buyout performance of LMBO companies in the UK and Germany until 1991; and (iii) investigates the changes in operating performance for a sample of 30 companies which conducted LMBOs in Germany in times of recession. Evidence of this research suggests that significant differences in the micro- and macroeconomic conditions and in the legal and tax environment in the UK and Germany were responsible for the different level of LMBO activity in these countries. The results of the research indicate further that the leveraged management buyout structure improved post-buyout operating performance of the majority of UK and German LMBO companies until 1991. The results on the examination of companies which were the target of LMBOs during the difficult economic conditions from 1991 to 1994 revealed that the sample companies were able to improve operating performance after the buyout. Statistical evidence however could not confirm the assumption that post-buyout performance exceeds pre-buyout performance of German LMBO companies in times of recession.

Due to the fact that research on German LMBO companies is limited in scope and number, further research should focus on the following issues: (i) whether the LMBO structure can be sustained over the long term as a corporate form in Germany; (ii) why some LMBO companies fail in Germany; (iii) why, if the LMBO structure is the optimal organisational form, some German LMBO companies go private after the buyout.

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Summary:

The 1980's witnessed a dramatic increase in the incidence of debt-laden corporate restructuring, so-called leveraged buyouts. One frequently employed form thereof is the leveraged management buyout (LMBO). After beginning in the US, these buyout transactions quickly traversed the Atlantic, spreading first to the UK and then throughout Europe. In times of recession leveraged management buyouts were seen as an important method of restructuring in order to improve the efficiency and performance of the corporate structure through the remarriage of ownership and control and through the influence of leverage in the funding of the transaction.

This research is a five-part study of leveraged management buyouts. It starts with a description of the leveraged management buyout concept in general, providing information about the most important LMBO company characteristics, the role of debt in the transaction, the structure of the transaction and the potential exit alternatives after the buyout. The following sections research the development of specific micro- and macroeconomic factors as well as the legal and tax environment. These external conditions have influenced the development of LMBO activity and are responsible for the current levels of LMBO activity in the UK and Germany. Finally, the study examines and compares the post-buyout performance of UK and German LMBO companies until 1991, concluding with evidence on changes in the operating results of 30 sample German LMBO companies under the difficult economic conditions between 1991 and 1994. The research on post-buyout performance of German LMBO companies in recessionary times examines to what extent deteriorating macroeconomic conditions diminish the positive effects of leveraged management buyout transactions. In this context, company performance one year before the buyout was compared to company performance two years after the buyout and to the average industry performance. Three accounting variables were used to measure performance and the t-test and anova analysis was used to test the null hypothesis that pre-buyout performance equals post-buyout performance.

The comparison of micro- and macroeconomic factors in the UK and Germany reveal that significant differences in the external conditions of LMBO activity were responsible for the considerably less strong development in German LMBO activity compared to that of the UK. Furthermore, research on the legal and taxation requirements in both countries revealed that the regulations were much more complex and strict in Germany than in the UK. This may have contributed to the far less dynamic development of LMBO activity in Germany.

The results on the comparison of post-buyout performance of German and UK LMBO companies revealed that LMBOs before 1991 led to improvements in the post-buyout operating performance for a majority of LMBO companies. The results obtained suggest that operating performance after the buyout is higher than before the buyout. The evidence found supports the assumption that changes in operational performance are due to the reunification of ownership and control giving management an incentive to increase efficiency and value and finding a way to pay off the LMBO debt while increasing the value of the firm.

The examination of the post-buyout performance in 30 German LMBO companies which conducted an LMBO in the recessionary period between 1991 and 1994 revealed that the post-buyout performance with respect to sales, operating income and operating cash-flow exceeded the pre-buyout performance. The statistical calculations on the variables sales, operating income and operating cash-flow of the 30 sample companies produced differing results. The results on pre- and post-buyout sales were statistically significant so that the null hypothesis that post-buyout sales volume equals pre-buyout sales volume could be rejected. The results for the difference in pre- and post-buyout operating income and cash-flow were statistically insignificant, so that the null hypothesis could not be rejected. As a consequence, it could not be statistically proven that LMBO structure has a positive impact on the post-buyout performance of companies which conducted LMBOs in times of economic recession.

Existing research about the development of German LMBO companies is still very limited in scope and number. In order to complete the existing evidence on post-buyout performance of German LMBO companies, further research is needed on the longevity of the LMBO structure as a corporate form in Germany. Second, future research should focus on the reasons for LMBO company failures in Germany, with a comprehensive study on the factors which led to bankruptcy. Third, if the LMBO structure is an optimal organisational form, more research is needed on the question why some LMBO companies go public after the buyout and whether the increase in performance is sustainable after the company has gone public.

A. General description of the study focus

I. Introduction

1. Nature and intent of LMBOs

The decade of the 1980s witnessed a dramatic increase in the incidence of debt-laden corporate restructuring, so-called leveraged buyouts. One form of restructuring that has frequently been employed is the leveraged management buyout. In this transaction, stock ownership is concentrated in the hands of incumbent top level managers and a relatively small number of investors. Leveraged buyouts (LBOs) and especially leveraged management buyouts (LMBOs) were important elements in the process of corporate restructuring which emerged in the US in the late 1970's.

After its advance in the US, buyouts quickly traversed the Atlantic, spreading first to the UK and then throughout Europe. Here, in times of recession, buyouts have played an important role in the restructuring of firms. Efficiency and performance were improved by a shift in ownership and by the influence of the leverage that played a significant role in the funding of the transaction.

The relatively short history of leveraged management buyouts in Continental Europe began in the late 1980's. In Germany, the idea took off when many large conglomerates were looking to sell off non-core subsidiaries in order to raise cash or when the succession problems of family-owned businesses became an issue to be resolved. According to a study of Chiplin and Wright (1989), the buyout market in Germany, compared to that in its European neighbour Great Britain, has been very slow to develop.

In the UK and the US, where the buyout market can be traced back to the late 70s, researchers have examined the nature and the intent of leveraged finance transactions and the effects of debt on post-buyout performance.

Palepu (1990), who examined the influence of leveraged buyout transactions on the value of a company, writes that, although a significant increase in financial leverage is the most obvious characteristic in these transactions, several other aspects must also be considered.

According to Palepu (1990), buyouts are structured so that management receives equity holdings in the firm, bringing about significant changes in corporate governance. Managers and equity investors join the firm's board of directors and play an active role in the future strategy and performance of the firm.

Due to the fact that leveraged finance transactions have increased in size and frequency during the eighties and nineties, their economic consequences have been widely discussed. Proponents (Palepu, 1990) argue that the organisational changes associated with these transactions motivate managers to maximise value and can therefore lead to better operating and investment decisions. An opposing view presented in Palepu's study (1990) maintains that the increased financial leverage associated with leveraged buyouts make firms short-term-oriented and vulnerable to financial distress, leading to a decline in their competitiveness. Several studies presented in part E have attempted to address this controversy by documenting the economic consequences of leveraged finance transactions.

2. Current evidence on the consequences of LMBOs

2.1 US

In the US, Jensen (1986), Bull (1987), Kaplan (1989), Lehn and Poulsen (1989), among others, have published studies examining various aspects of the development of leveraged buyout transactions on the basis of public information. These studies - which will be discussed in detail in part E - come to the conclusion that ratios like return on equity, sales turnover and productivity increase significantly after the buyout transaction. The findings show also that only few companies failed and financial restructuring of some deals was only necessary in later transactions.

2.2 UK

In the UK most LMBO studies have been conducted by the Centre for Management Buyout Research (CMBOR) in Nottingham. The surveys concerning LMBOs up to 1983 by Wright and Coyne (1985) and by Thompson et al (1989) found evidence of improvement in both turnover and trading profit. Another paper of the CMBOR by Thompson, Wright and Robbie (1990 and 1992) presented evidence that value gains from corporate restructuring resulted primarily from motivating managers through equity ownership. They found no evidence that leverage *per se* produced improvements in the return on total capital. In 1997 Kevin Amess researched management buyouts and firm-level performance of management buyouts from 1984 to 1994. The results of the research indicated that there were two types of buyout firm: firstly there firms where the buyout served as kind of “shock-therapy” inducing one-time improvements. Secondly Amess found evidence that some buyout firms experience a negative shift effect of the production function while labour productivity increased up to 17 percent.

The above mentioned studies examined mainly the short term performance of LMBOs. Those of Bannock in co-operation with 3i (1989) and the Warwick Business School (1990) complemented them by focusing more on the long-term performance of LMBOs. In their research they came to the conclusion that the long term financial performance of LMBOs was worse than the industry average which is a complete reversal of the better-than-industry performance of LMBOs in the short to medium term (up to three years). Wright, Wilson and Robbie (1995) who continued their research on long-term effect of management buyouts showed that on a variety of financial ratios they significantly outperformed a matched sample of non-buyouts, especially from year 3 onwards.

The following study will among, other things, contribute to the existing knowledge of post-buyout performance of leveraged finance companies by comparing the post-buyout performance (short term) of UK and German LMBO companies and by examining whether the German experience will confirm or reject the Anglo-American findings on performance improvement.

2.3 Germany

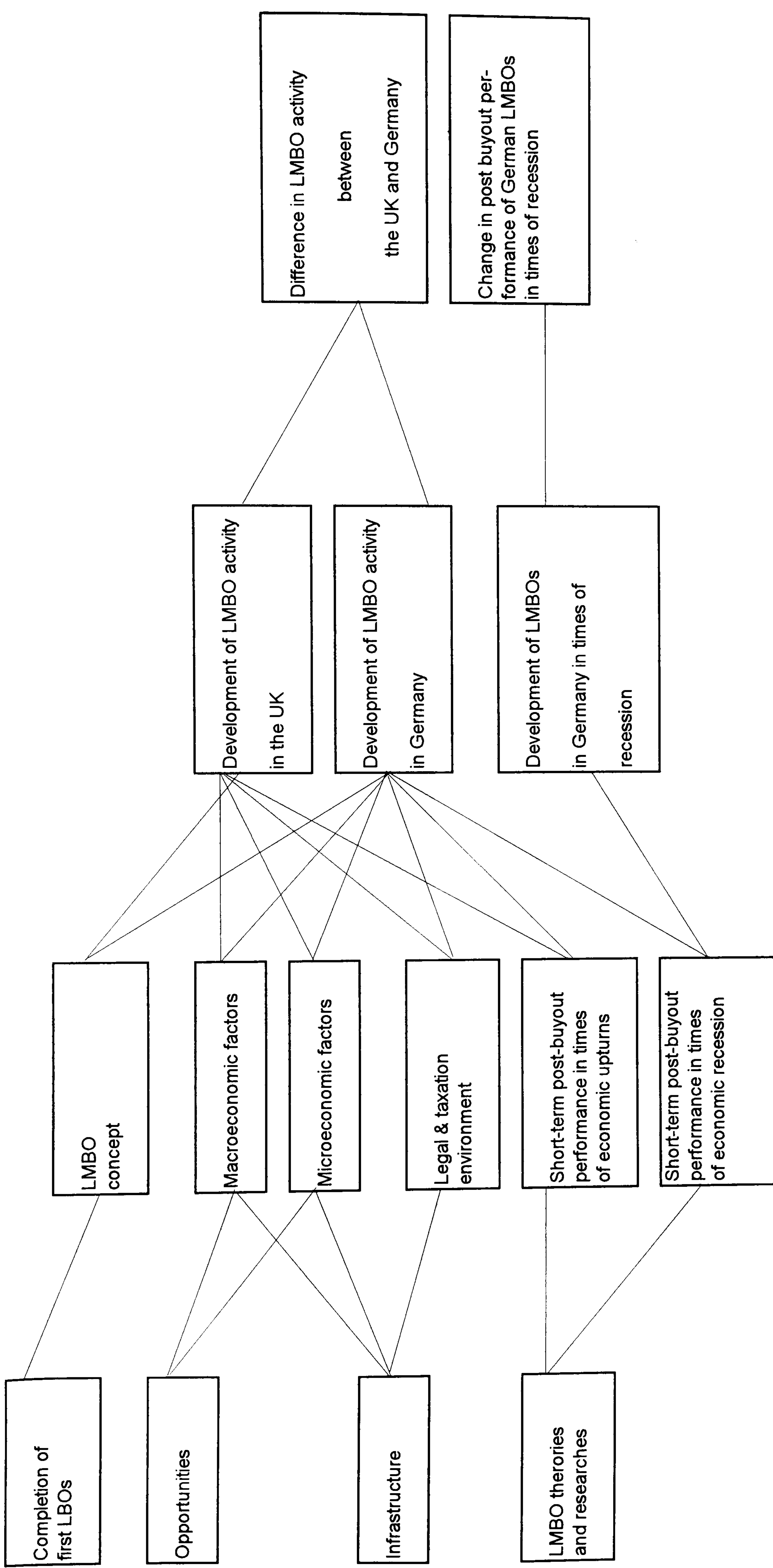
In Germany three studies by Forst (1992), Gräper (1993) and Vest (1994) have been published outlining the development of LMBO companies. They are divided according to family-LMBOs, spin-offs, going concern and turnaround MBOs. Here, ratios concerning profitability and productivity show that the majority of all buyout cases have better performance after the buyout. The studies examined the short-term performance of LMBOs up to 1991. The evidence presented above is primarily drawn from a period of economic success in Germany, so it will be necessary to gather evidence about German LMBOs under difficult economic conditions. This study will therefore expand on the existing research by examining the post-buyout performance of German leveraged management buyout companies under the recessionary conditions between 1991 and 1994.

3. Goals and objectives of the study

The deal flow of LMBOs experienced in the UK was bound to eventually have an influence on Continental Europe, but the transaction flow has been slow to develop. Germany, the main focus of this study, has long been considered as a rich source for management buyouts but only recently has it begun to realise some of its potential.

The purpose of this study is to describe the main factors that have a strong impact on LMBO activity in the UK and Germany, macro- and microeconomic aspects as well as legal and tax requirements and the corresponding LMBO take-over models. Following, a comparison of post-buyout performance in the UK and Germany will answer the question how the differences in macro- and microeconomic factors have influenced company performance in both countries. Finally, the examination of post-buyout company performance in Germany under recessionary conditions will show to what extent deteriorating macro-economic conditions mitigate the positive effects of leveraged management buyout transactions. The following table presents an outline of the research design:

Research design of the study



4. Steps of the study

The steps of the study are as follows:

Part A starts with a general description of the study focus, presenting the nature and intent of leveraged finance transactions as well as the goals and methods of the study.

Part B describes the leveraged management buyout concept in general and provides information about the most important LMBO company characteristics, the structure of the transactions and the various exit possibilities after the buyout.

Part C of this study focuses on the comparison of macro- and microeconomic factors that influence LMBO activity in the UK and Germany and researches how the different LMBO environments affect the development of LMBO activity in the respective countries.

Part D continues the comparison of LMBO factors in the UK and Germany by researching the differences in the legal and tax environment and illustrating the various take-over models which enable the LMBO participants to overcome these legal and tax barriers.

Part E focuses on the research of post-buyout performance of LMBO companies and examines the theories and studies conducted in the US, the UK and Germany on this issue. Furthermore, this part of the study compares the post-buyout performance of UK and German LMBO companies, presenting the results of the empirical research on post-buyout company performance of LMBO companies operating under the difficult economic conditions between 1991 and 1994. It complements studies by Forst (1992), Gräper (1993) and Vest (1994), which assessed the performance of LMBOs until 1991. These studies show that the financial performance of LMBOs was not only better after the buyout, but also better than their industry average.

Part E of the study concludes with a summary of the implications of the findings. Here, the evidence for the hypotheses set out in the study will be summarised and its relevance for a number of related topics will be discussed. Furthermore, recommendations will be made for the further investigation required to fill the remaining gaps in the present LMBO research.

Finally, part F concludes the study with a presentation the findings of the research.

5. Method of study

This study consists of several research sections in which the following methods have been applied: The descriptive method is used in sections C, D and partially in section E, which describes the differences between UK and Germany with respect to macro- and microeconomic LMBO factors. The goal of these descriptive parts is to examine the economic, legal and tax conditions for leveraged finance transactions in the UK and Germany, which should provide an explanation for the current level of LMBO activity in the respective countries. Hypotheses testing is applied in sections C and D in which the following factors in the UK and Germany will be compared. The hypotheses examined in part C of the study are as follows:

- H1: The economic background for LMBOs in the UK and Germany is equal.
- H2: The LMBO environment with respect to the data about LMBOs, the main sources for LMBOs and the volume of the LMBO market in the UK and Germany is equal.
- H3: The role of financial investors in the UK and Germany is equal.
- H4: The exit possibilities for LMBOs in the UK and Germany are equal.
- H5: The perspectives for the LMBO market in the UK and Germany are equal.
- H6: The form and legal structure of companies in the UK and Germany is equal.
- H7: The business activity of LMBO companies in the UK and Germany is equal.
- H8: The ownership, control and decision-making of banks in companies in the UK and Germany is equal.
- H9: The reasons to sell and acquire an LMBO company in the UK and Germany are equal.

The hypotheses examined in part D of the study are as follows:

- H1: The legal framework for LMBO transactions in the UK and Germany is equal.
- H2: The LMBO take-over models for LMBO transactions in the UK and Germany are equal.
- H3: The tax advantages resulting from take-over models for LMBO transactions in the UK and Germany are equal.

Hypotheses testing is equally applied in the empirical research presented in section E in which the post-buyout performance is compared to the pre- buyout performance of LMBO companies in Germany during the recession from 1991 to 1994. In order to determine the affect of the recession on post-buyout performance of LMBOs, the first task was to identify a large number of deals completed between 1990 and 1994, from which a sample could be selected for analysis. This was achieved using the admit data base and supplemented by a search of corporate finance journals such as *Acquisitions Monthly*, *Financial Times*, *Handelsblatt*, *Wirtschaftswoche*, *Manager Magazin*, etc. To ensure that the survey is representative of LMBO performance, a broad spectrum of industries was chosen for analysis. The selected 30 companies included the following industrial sectors:

- Metal-working
- Mechanical engineering
- Electrical engineering
- Wholesale trade
- Paper, Printing, Publishing
- Construction
- Textiles
- Service industry
- Wood processing

Once the companies were chosen as part of the sample, financial records were obtained from different sources such as equity investment firms, banks and the LMBO-companies themselves. The following key ratios have been selected as indicator for the company's performance and ability to generate cash:

- Net Sales

Net Sales was chosen as an important indicator of overall volume growth and a measure of competitive performance.

- Operating income

Operating income is the key indicator of operational performance in a corporation. Here, exceptional effects due to step-up depreciation have been ignored.

- Operating cash-flow

Operating cash-flow measures the company's ability to generate cash before deducting interest and taxes.

All variables are taken before taxes, extraordinary depreciation and interest expenses, as leveraged finance transactions have a large effect on these expenditures in specific take-over models. However, only managerial operating decisions, not taxes or financial decisions, affect the variables used in this research.

By comparing 1 year of post-buyout performance with 2 years of pre-buyout performance of the selected LMBO companies, this study will examine whether the existing theory of post-buyout improvement can be confirmed for LMBOs completed under difficult economic conditions. Furthermore, by comparing post-buyout performance to that of industry counterparts, it can be determined whether the LMBO-companies performed better than their respective industry average.

The hypotheses tested in this part of the research will be as follows:

H1: Firms undergoing leveraged management buyouts will have the same levels of sales after the buyout as before the buyout.

H2: Firms undergoing leveraged management buyouts will have the same level of sales growth rates as their respective industry rivals.

H3: Firms undergoing leveraged management buyouts will have the same levels of operating income after the buyout as before the buyout.

H4: Firms undergoing leveraged management buyouts will have the same levels of operating income growth after the buyout as their industry rivals.

H5: Firms undergoing leveraged management buyouts will have the same levels of operating cash-flow after the buyout as before the buyout.

H6: Firms undergoing leveraged management buyouts will have the same levels of operating cash-flow growth after the buyout as their industry rivals.

II. History and development of LMBOs

1. Development of L(M)BOs in the US

In the US, the first leveraged finance transactions can be found in the beginning of the 1960s, before the concept spread out internationally in the late 1970s (Moschner, 1989). An important aspect at that time was the increasing inflation rate in the US in the late 1970s which caused substantial differences between the book value and the market value of company assets. Additionally, the general crisis in the area of industrial production caused share prices of heavily industrialised companies to decline, so that the market value fell far below the book value of the company. Company value was not reflected in the share price and dissatisfied shareholders were more than willing to sell their shares in the company. Consequently, share prices declined even further and companies became easy targets for take-over transactions (Luippold, 1992) .

In the beginning, leveraged buyouts were based on assets. As obvious assets are needed to leverage, buyers in the early days tended to look for heavily industrialised companies with very low purchase prices in relation to the value of their assets. All debt funding was limited to the value of the existing assets and therefore very restricted. (Kohlberg, 1989). Only through the innovation of new financial products on the capital markets, like venture capital or cash-flow oriented debt financing, could the LMBO market develop to its present size (Amihud, 1985).

The real revolution occurred when banks and investment groups changed from asset-based lending to cash-flow lending. Only at this stage did it became possible for managers and purchasers to borrow the money needed to take-over companies and to aggressively use capital markets. In the course of this development, many companies started to view leveraged management buyouts as an attractive way to restructure their operations by spinning-off unprofitable units and returning to their core activities (Yago, 1991).

The resulting fourth merger wave which began in 1981 has been the longest standing and perhaps the most controversial force driving US businesses toward more competitive corporate and industrial reorganisation. Leveraged (management) buyouts were seen as an answer to the declining position of US firms in the world economy and to the growing world-wide competition of streamlined corporations and cost-effective strategies (Yago, 1991). However, there has been increasing criticism in the US about Leveraged management buyouts, because of the possibility management has to purchase a company at a price which would disadvantage other shareholders. This line of argument was studied by Kaplan (1989) who found evidence to reject the 'information advantage' or 'underpricing' hypothesis claiming that management buys a company based on superior information or in the belief that the firm is significantly undervalued by external investors. In summary, the development of the US L(M)BO market has been enhanced by the following macroeconomic conditions:

- An often inefficient stock market (Luippold, 1992)

Assets were undervalued, share prices were low and shareholders were willing to sell.

- Destruction of conglomerates (Yago, 1991)

Conglomerates had to restructure due to the declining position of US firms in the world economy and the need for industrial reorganisation.

- Creation of „high yield securities (junk bonds)“ (Yago, 1991)

The creation of 'high yield securities' or 'junk bonds' was based on a period of high inflation and interest rates in the US in which companies, especially non-investment grade companies, were looking for cost-effective sources of capital and investors were looking for ways to increase their returns.¹

¹ According to evidence by Jensen (Winter 1988) high yield bonds were first used in leveraged take-overs in 1984 and only 12% of the estimated 14,3 billion dollars of newly created high yield debt was associated with take-overs. Nevertheless, high yield bonds were an important innovation in the takeover field because they eliminated size as a deterrent to take-overs.

Since the beginning of the 1980s, there have been an unusually high number of leveraged buyout transactions in the US. According to the statistics of Mergerstat Review in Yago (1991), LBO values, as a percentage of the overall merger value, climbed from 3.8 percent in 1981 to 21.7 percent in 1987 increasing from 99 to 259 transactions. The average purchase price of the companies involved in leveraged buyouts increased from \$137m in 1981 to \$311m in 1987.

The main buyout sources were here the following (Chiplin, Coyne, Wright, 1988):

- Going privates
- Divestment from national and international groups
- Buyouts of non-quoted companies

According to statistics concerning the US buyout sources in 1984 (Chiplin, Coyne, Wright, 1988) 61 percent of US Buyouts were divestments, a figure which rose to 74 percent in 1986 and 79 percent by 1987. Over the same period the number of 'going privates' fell from 59 percent in 1984 to 39 percent in 1986.² The steady increase in LBO transactions was halted by the stock market crash for a short period in 1987 which resulted in the following changes for leveraged finance transactions in the macroeconomic environment (Patricof, 1988):

- Less aggressive valuation of companies and therefore lower purchase prices
- Higher requirements set by financing institutions concerning the debt/equity ratio
- Reduction of existing debt levels to avoid over-leveraged companies

² According to Chiplotin, Coyne and Wright (1988) part of the reason for the decline lies in the reduced appeal of listed companies appropriate for a management buyout - another reason is the high level of merger activity which raises the price and may cause management to lose out in buyout attempts.

After the stock market crash in 1987, the US L(M)BO market appeared to emerge stronger than before. LBOs with high transaction volumes, like the take-over of Kraft by Philip Morris for \$13bn and the take-over of RJR Nabisco for \$25.7m, were examples of a new dimension of buyouts (Fest/Wolbert, 1989). However statistics provide evidence that the number of US LBOs have declined slightly since 1986 (Yago, Mergerstat Review). LBO failures and company restructuring, as seen in Hillsborough Holdings, ICI Television and Leaseway, as well as the early conditions of recession made US financiers more reluctant to back 'highly leveraged transactions' and put an end to the LBO boom of the 1980s (Luippold, 1992).

2. Development of LMBOs in the UK

In the US, the most spectacular development so far has been the leveraged buyouts (LBO) of publicly-held corporations. In the UK, by contrast, the equivalent is the leveraged management buyout (LMBO). While LBO transactions in the US came about mainly through undervalued assets and low share prices as well as the need for restructuring, much of the impetus for UK LMBOs came from the desire to make viable enterprises out of companies entering receivership because of the effects of severe recession. According to the statistics of the Centre for Management Buyout Research in Nottingham (Wright, Normand, Robbie 1987), over 12 percent of the transactions came from these sources at the beginning of the real LMBO movement in 1981. However, the most important source of UK LMBOs has always been the divestment of UK and foreign-based parent companies needing industrial restructuring. From 1987 on buyouts resulting from privately-owned family firms also became increasingly important as source for LMBO activity (Wright, Normand, Robbie, 1987).

In their study about MBOs in the UK Wright and Coyne (1985) wrote the following about the development of the LMBO activity in the UK:

„There is little doubt that there have always been instances where management have bought their companies, but what makes the current growth of buyouts significant is the extent to which those numbers have grown and continue to grow, the way in which venture capital suppliers are looking specifically to finance such deals and the positive mood of encouragement which permeates all the way down from the government“

As to the level of LMBO activity in the UK, the number of LMBOs was relatively low at the beginning, with 143 transactions in 1981 (Wright/Robbie, CMBOR Winter 1995/96). LMBOs were mainly considered as a means for the purchase of smaller companies or units which were unprofitable, in financial distress or even close to receivership. The LMBO was regarded primarily as an alternative to the liquidation of the company which would have meant redundancy for the managers (Luippold, 1990).

Since the beginnings of the active LMBO market in 1981, the revival of the concept of entrepreneurship, promoted by the philosophies of the newly-elected Conservative government, encouraged managers to run their own business. Company owners were willing to sell their enterprise either as part of a group restructuring or due to their wish to retire. The increase in LMBO activity was further enhanced by the deep recession which began in 1981. The number of LMBOs resulting in receivership increased dramatically to 12 percent and there was a radical appraisal of company structure (Wright, Normand, Robbie 1987).

The buyout phenomenon was further encouraged through measures initiated by Margaret Thatcher's new government, which introduced important changes in British law, for example in the regulations concerning „the prohibition of financial assistance“³ (Frommann, 1989).

³ For details concerning the prohibition of financial assistance see part D, I.1.1.

The convergence of these factors attracted more LMBO participants into the market and increased the available opportunities. According to statistics of the CMBOR (1987), rapid growth in the market occurred with the number of LMBO transactions increasing from 143 in 1981 to 237 in 1982. The UK buyout volume exceeded £1bn in 1985 and the number of buyout transactions reached 262. The value increased to £3bn with an average deal size of more than £10m in 1987 for the first time. This increase in activity was also due to several financing factors such as the development of specialist venture capital funds and the US institutions willing to provide large amounts of funds (Wright, Normand, Robbie, 1990)⁴.

The merger wave from 1987 to 1989 brought an additional flow of merger and acquisitions activity. The 344 LMBO transactions in 1987 had an average value of £3.1bn, this rose to 375 transactions at an average of £3.8bn at the end of the decade.

While the volume of deals declined in the 1990's, there was a significant increase in LMBO value: from £2.1bn in 1991 to £2.5bn in 1994. According to Wright and Robbie (Summer 1995), this increase reflects several factors of the LMBO market at this time. First, the recession-related programmes of the early 90's had come to an end, keeping the number of receivership transactions at a comparatively low level. Second, buyout prices increased due to high vendor price expectations and the development of vendor "auctions" where the deal was conceded to the highest bidder. In 1995, the total value of UK LMBOs was estimated to have increased by 12.2 percent to £2.8 bn. According to the Wright and Robbie (CMBOR, Winter 1995/96) this increase in deal flow was due to LMBO advisers having more success in identifying opportunities, entrepreneurs had become more important in deal generation and venture capitalists had been more proactive in initiating deals themselves. During 1996, the total value of UK LMBOs increased by 27.9 percent to £3.6 bn, almost reaching the previous record achieved in 1989 of £3.8 bn. According to Wright and Robbie (CMBOR, Spring 1997) the high level of activity has to be seen in the context of a still strong overall market for corporate control in the form of acquisitions and sell-offs where LMBO transactions played an important part.

⁴ For details concerning the development of LBO funds see part C, I.3.1

3. Development of L(M)BOs in Germany

In Germany the acceptance of the LMBO concept was slow in coming. The main reason for this was the source of LMBOs in Germany, which differed markedly from the UK, the most obvious difference being the predominance of family and other private companies as LMBO sources as opposed to divestments (Fahrholz, 1991).

The small and medium sized companies in Germany, so-called 'Mittelstand'⁵ facing succession problems have always been regarded as the strongest source for LMBOs. However, according to the statistics of the CMBOR/Initiative Europe (Europe Buyout Review 1995) in 1991 only 11 percent of all German LMBOs resulted from the transfer of family businesses to management. However, since the 1990s, the market has grown slowly. The recessionary conditions in Germany in the 1990s forced company owners to sell rather than struggle through recession. While LMBOs of family-owned companies accounted for only 11 percent of the total transactions in 1991, this proportion increased to 40 percent in 1994, making it the main LMBO source in Germany (Initiative Europe, 1995).

Furthermore, since the beginning of the 1990s, German industry has gone through an intense phase of restructuring due partly to the effects of German reunification and partly to recession. National and international corporations faced the pressure of growing international competition - especially through the 'Common European Market' in 1992 - and were forced to undertake restructuring efforts and spin-off unwanted subsidiaries in order to return to their core-businesses and to profitability. As a result of the above mentioned factors, LMBO activity increased continuously throughout the 1990s reaching a total of 59 transactions and a market value of £733m in 1994. The majority of LMBOs resulting from divestments made up 54 percent of the total transactions, with a majority of domestic transactions (41 percent). In 1995, Germany's LMBO market value fell back to £540m, however in 1996, the estimated market value exceeded £1bn ranking Germany the first time as number one LMBO market in Continental Europe before France (Initiative Europe, 1997).

⁵ Small- to medium-sized companies in Germany are companies with less than 500 employees and sales which do not exceed DM 250m in sales are called the 'Mittelstand' in Germany

The impact of the recession which hit the economy in the 1990s finally placed pressure on domestic and international companies to restructure their often diversified portfolios, providing an impetus for reinforced LMBO activity.

Until the beginning of the 80's, the financing of LBOs depended greatly on the amount of security provided. However, due to a reinforced need for innovative finance transactions, cash-flow based lending in the form of LBOs and LMBOs became an interesting alternative (Dienst, 1989). In the beginning of the 1990s, some banks started to establish departments providing the specialised skills required to structure and monitor LMBOs. There were considerable differences between LMBO and the usual corporate lending transactions. These departments were created to ensure the speed and the quality of service in this new business area. However, regardless of the changing attitudes of some banks towards cash-flow oriented financing, banks in Germany have a wide range of possibilities to influence and regulate LMBO activity. One example in this context is the close relationship between companies and their so-called 'house-banks'⁶. The supervisory board may include an executive of the 'house-bank' who may keep leveraged management buyouts out of discussion.

It can generally be said that the German LMBO market became quite active in the 1990s, especially in 1993/1994 and 1996 due to the recessionary conditions, the ongoing industrial restructuring and the increasing number of family-owned companies facing succession problems. Furthermore, the increased LMBO activity in the 1990's suggests that several long-standing obstacles had been overcome, such as the realisation of investments, the complex tax regulations, the lack of entrepreneurial spirit in German managers and the role of the banking sector which had hindered the pace of growth of the LMBO market in the past.

⁶ 'House-bank' is the bank with which a company handles most of their financial transactions. It has the status of the main bank due to a long standing relationship with the company. The dominant role of German banks - due among other things to their function as 'house-banks' - will be further discussed in part C, II, 3.3

The following section will present the theoretical basis of the management buyout concept. It outlines the life cycle of a leveraged management buyout transaction, presenting and evaluating important general issues such as what company characteristics are necessary for a successful buyout candidate and a study of various methods of valuation as well as different financing and exit alternatives for investors.

B. The Management Buyout Concept (non country-specific)

I. The LMBO life cycle

According to Wright, Thompson and Robbie (1991) the general LMBO is regarded as a finance concept consisting of several phases which constitutes what is commonly known as the LMBO life cycle. The phases of this life cycle are as follows:

Phase I = Generation of opportunities

- Appraisal of existing ownership structure and the willingness of owners to sell
- Existence of entrepreneurial culture of managers
- Appraisal of company characteristics

Phase II = Structuring of the deal

- Provision of equity and debt
- Structuring of take-over models

Phase III = Completion of the deal

Phase IV = Consolidation, growth and strategy

Phase V = Realisation of gains

- Flotation, trade sale or recapitalisation

The following section presents the most important stages of the LMBO cycle starting with the appraisal of the existing opportunities and the structuring of the transaction leading to the realisation of gains through the best exit alternative.

II. Establishing the principle

1. Company characteristics

1.1 Management criteria

A competent management team is the most important criteria for the success of a leveraged management buyout. Buyout specialist O'Brien (1995) states in this context that only an efficient management team is able to realise the projected goals after the transaction. Mac Millan (1987) underlines in his article about the criteria distinguishing successful from unsuccessful transactions that the most important criteria for investors in examining potential LMBO targets were entrepreneurial team characteristics and the experience of the management only followed then by product, market and financial characteristics of the target company.

Also according to research by Wright and Coyne (1985), the existence of a well-balanced, highly-motivated and able management team is crucial to the success of the buyout. The survey revealed that the LMBO team generally consists of managers from the key areas sales, marketing, production and finance, however evidence (Wright, Coyne 1985) suggests that there is a wide spread around this figure.⁷ Wright and Coyne (1985) find a correlation between the size of a buyout team and the number of employees in the target company. Although evidence (Wright, Coyne, 1985) confirms this, the number of employees is not the only explanation for the size of the team. According to the authors, the second explanation is the purchase price of the company; there is evidence that the higher the purchase price, the higher the possibility of increasing the numbers in the buyout team even by involving company employees.

⁷ Over the sample the range was from one to forty-two. The buyout with forty-two in the team represented a company active in the area of international stock trade with a work force of 329 employees spread across twenty-five subsidiaries.

1.2 General and business criteria

Leveraged management buyouts have often been referred to as a method of acquiring a business with debt (Wright, Normand, Robbie, 1987). One of the crucial elements is the purchase price which determines the structure of the LMBO. Financing is structured with a balance between equity and debt which ensures funding of the purchase price without undue risk of bankruptcy. In general, Fried and Hisrich (1994) suggest that investors use three criteria for evaluation investments:

- the viability and novelty of the project
- the integrity, track record and leadership skills of the management
- and the possibility for high returns and exit.

Concerning the general criteria for the evaluation of investment opportunities Fried et al (1993) revealed that in their article about venture capitalists investment criteria that investors had become more concerned over market acceptance and less demanding on high rates of return and quick exits. In this context Muzyka et al (1995) found out in their research about investment decisions of European venture capitalists that investors had to make trade-offs between various criteria and that investors would prefer to select investments which offer a good management team and reasonable financial and product characteristics even if the transaction does not meet the overall funding and deal requirements.

Concerning the business criteria for LMBO companies buyout experts (O'Brien, 1995) consider the high leverage of an LMBO inappropriate when the cash-flow required to service debt is subject to high business risk.⁸ Potential investors in the transaction must be assured that the target company fulfils the following prerequisites:

- a secure market position
- a good predictable cash-flow
- a real growth potential
- the ability to cope with business cycle fluctuations

⁸ Business risk is here expressed as the risk that a company will not meet its cash flow projections for normal business reasons such as competition, recession, a strike or cost overruns.

The effect of business cycles is an essential aspect in the evaluation of business criteria for a leveraged buyout transaction. High tech companies, for instance, are generally not considered to be good LMBO candidates, both because their future business prospects are often uncertain and because new, growing technology companies generally reinvest a large portion of their earnings in the business and therefore lack the necessary cash-flow volume to service the interest and debt of an LMBO-loan. Companies from the supplier industry are also not very good LMBO candidates, because they cannot control prices and are vulnerable to market over-capacity over long periods during which selling prices can fall below production costs (O'Brien, 1995).

1.3 Financial criteria

1.3.1 Cash-flow analysis

A prime condition for a solid leveraged management buyout transaction is a strong profit situation with growth potential and a guaranteed steady cash-flow. According to Jensen and Meckling (1988), desirable leveraged buyout candidates are frequently firms with stable business histories, low growth prospects and high potential for generating cash-flow.⁹ A steady cash-flow serves primarily to judge the actual and future financial power of a buyout company with respect to its future investments, its pay-back obligations or its ability to distribute dividends.

There are generally 2 different ways to calculate cash-flow.¹⁰ They can be defined as follows:

1.3.1.1 The indirect method

Net profit/loss
+ depreciation (- additions)
+ increase/decrease of long-term provisions
= cash-flow

⁹ Evidence concerning industry distribution of leveraged finance transactions by Jensen (1986) indicates that LBOs tend to occur in mature industries like the oil, forest and food industry generating high and stable cash flow.

¹⁰ Definition by Coenenberg, 1992

This method of cash-flow calculation shows that the positions depreciation and provisions play a key role in the development of the future cash-flow. If the LMBO model is constructed so that depreciation and provision increase, the reduced tax liability will lead to increased cash-flow after the buyout.

In contrast to the above method, which focuses on the aspects of tax reduction, the following cash-flow method is a multi-step model better suited to the analytical needs of LMBO target company valuation.

1.3.1.2 The direct method

Operative revenues, which led to income in the corresponding period

- Operative expenses, which led to costs in the corresponding period

= Cash-flow from operating activities

- taxes

- dividends

- interest

= Retained operating cash-flow

- net capital expenditures

= Free cash-flow available for repayment of interests and existing debt

- repayment of existing debt

= Cash-flow available for LMBO financing

The cash-flow available for LMBO financing is especially interesting for LMBO investors and financiers, since it determines the amount available for interest and repayment of the additional debt involved in LMBO financing.

1.3.2 Evaluation of debt levels

The following ratios are also very important in cash-flow calculations, as they indicate the debt repayment potential of a LMBO company.

1.3.2.1 Long-term debt service capacity

debt

—————

average of future cash-flow per year

This ratio indicates the number of years in which the LMBO-company is required to pay-off the interest bearing LMBO debts.

1.3.2.2 Gross gearing

The following ratio is only important for LMBO financiers and investors when compared to other companies in the same branch.

debt

—————

total capital

Lerbinger (1986) writes in this context that the gross gearing ratio of a potential LMBO candidate should not exceed the average gross gearing ratio of the industry the company operates in. Only if this ratio is below or equal the industry average does the LMBO-candidate have sufficient potential for the new debt necessary in LMBO purchase price financing.

Generally speaking, it can be said that the cash-flow potential is a key factor in the evaluation of the LMBO company. Since the LMBO transaction is not, as in normal take-over transactions, based on the potential of the purchasing company but on the cash-flow capacity of the target company, this reference primarily determines the practicality and the feasible financing volume of the LMBO transaction.

1.3.3 Investment intensity

According to the experience of LMBO experts (von der Groeben, 1988), the investment needs of LMBO companies should not be too high or restricted to the replacement of the existing assets as a result of the initial high debt burden caused by the buyout. However, Vest (1994) found evidence in his research on German spin-off LMBOs that the sample companies had a significant need for investment in the area of research & development due to the restrictive investment policy of the former parent company. These findings were also confirmed by Forst's study of German LMBO companies (1992), in which 35,7 percent of the selected buyout companies reported a 5 percent annual increase in research and development after the buyout.

Increased cash-flow requirements of LMBO companies - especially for research and development - can, however, be compensated through an 'asset stripping programme' carried out after the buyout (Vest, 1994). The LMBO company focuses on its productive assets which support core business and produce enough cash-flow to meet the debt servicing requirements. They 'strip' away all unproductive, non-core assets. This procedure enables the company to release existing cash-flow potential which can then be used to reduce the debt burden caused by the LMBO structure.

2. Conception and implementation of a buyout

2.1 The business plan

The main objective of a business plan is to help raise finance by presenting the goals and ambitions of the target company and the means to achieve them. A clear, well presented business plan is an important factor in securing investor confidence in the management team and the LMBO proposal. The plan should therefore:

- Emphasise the strengths of the business and its position in the market
- Recognise the risks
- Project the development of the business

2.2 Due diligence - the role of the reporting accountant

Due diligence is the legal term for the careful analysis a potential purchaser/investor carries out in the negotiation process. The due diligence process usually begins with the analysis of the target company's financial performance and condition in order to arrive at a company value and should continue until all questions are answered and a final agreement reached.

Hoffmann/Ramke (1992) see the main elements of the due diligence as follows:

- Examination and evaluation of the business plan
- Audit of financial accounts
- Evaluation of tax consequences resulting from the LMBO transaction

Harvey and Lusch (1995) state in their article about the nature and scope of the financial due diligence process that a variety of issues can directly impact the level of the due diligence conducted during the acquisition process. According to the authors these issues can be divided into aspects like time constraints, cost restrictions and situational factors. However Wright and Robbie (1997) underline in this context that there are signs that investors have found a viable solution to those problems through recent measures like involving inside and outside management in direct negotiations between vendors and investors. Wright and Robbie (autumn 1997) write further that UK based venture capitalists placed much importance on the use of an independent accountant's report and that never the same reportant accountant as management's accounting adviser was used.

3. Valuation of the company and determination of the total financing volume

The valuation of the company and the resulting purchase price estimates are key factors in the negotiation process of an LMBO. There are several methods to determine the value of an unquoted company. The vendor always calculates the purchase price by means of the discounted cash-flow method, using the estimated value which the target company would have achieved under the best possible management. The minimum purchase price the vendor demands is calculated on the basis of realistic going-concern prospects or of the required expenses should the company be liquidated (Vest, 1994).

The purchaser, on the other hand, tries to negotiate a minimal purchase price by citing conservatively calculated incoming cash-flow streams and cash-flow burdens due to the additional investments he must make after the buyout (Vest, 1994). According to Wright and Robbie (1997) evidence suggests that venture capital projects are typically valued by applying one or more valuation techniques based on the financial and accounting information contained in the business plan projections of the target company. De Angelo (1990) suggests in this context that investment banks apply a variety of techniques including the discounted cash-flow method or asset and earnings-based methods which can be provided by highly developed capital markets. According to a research by Wright, Robbie and Chiplin (Autumn 1997) methods based on price-earnings were very popular in the UK whereas discounted cash-flow methods ranked in general less important than earnings-based methods. The following paragraphs will give an overview over the most frequently applied valuation methods in LMBO transactions:

3.1 The discounted cash-flow method

As described in section 3.1.2, valuations based on assets or current price/earnings ratio have a number of weaknesses, which can be overcome with the discounted cash-flow method. Being cash based, this method does not rely on accounting conventions. As projected cash-flows are the basis here, it views the business on a going concern basis. The discounted cash-flow method considers the value of the LMBO company as equal to the value of its future cash-flow discounted to the present value. In this calculation, four criteria are important:

- Cash-flow projections
- End value of the company (liquidation value, future profits or profit multiplication)
- Length of the projection period
- Interest for the discount of the cash-flow

Generally, one can distinguish between the gross and the net discount method. Whereas the gross discount method calculates the future cash-flow before payment of interest and debt, the net cash-flow method represents the available cash after payment of debt servicing costs and the LMBO loan. According to Karsunky (1992), however, the gross discount method is more important in LMBO evaluation, as it determines the amount available for interest and repayment of LMBO debt. Therefore, the value of the LMBO company determined by the gross discount method highlights the debt potential of the target company free of debt. The formula for the discounted cash-flow method ¹¹ is as follows:

$\frac{\text{Earning value} = \text{CF}}{(1+i)^n}$	$+$	$\frac{L}{(1+i)^n}$
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CF= future cash-flow in year t

i = interest for discount

L = liquidation value in the year t

n = time in years

The discounted cash-flow enables the purchaser to recognise the time element of the cash tied up in the project. By discounting the cash-flow stream, the tied-up capital is certain to be fully costed. This method also considers the purchaser's 'opportunity costs' of capital, based on the return he would get with the best alternative investment. The cost of capital is generally the vital link between a firm's financing and its investment, so the cost of capital determines the discount rate for the valuation of the firm as a whole. Since the firm usually uses both debt and equity finance - and these have different costs - it is necessary to calculate the weighted average cost of capital (WAC). The gearing is measured according to the permanent capital structure the target company is expected to have. If short term sources of finance are expected to be a permanent feature of the balance sheet, then it would be appropriate to use a gearing concept which includes them (Higson, 1995).

¹¹ According to the definition of Wöhe, 1992

By discounting the cash-flow of the company, the resulting net present value shows the purchasers the immediate increase in their wealth through ownership (Higson, 1995). The interest used for the discounted cash-flow method can vary the value of the company by definition. One possible formula, used by Braun (1989), includes the following elements:

Market interest rate

+ inflation rate

= basic interest rate

+ supplement for operative risk of the LMBO-transaction

+ supplement for the lack of mobility of the investment

+ supplement for financial risk of the LMBO-transaction

= **Discount rate**

3.1.2. The asset based valuation method

The asset based valuation method calculates the value of a company as the sum of the value of its assets. In general, there are two ways in which the underlying assets are evaluated:

The liquidation value method

According to Wöhe (1996), the liquidation value of a company shows the net proceeds (after all expenses and taxes) from the sale of the company's assets at fair market value. The liquidation value of a company generally represents the absolute minimum value of a business.

The replacement value method

The replacement value of a company represents the cost if the assets were replaced at the current market price. Assuming the buyer is willing, the replacement value is higher than the liquidation value. As in the above method, replacement value is used to establish the floor or minimum value of a company. The problem with asset based valuations is that they fail to consider the business as having any value apart from its assets - completely ignoring earning power. Therefore, the asset valuation method can only be a supplement to the discounted cash-flow method in determining the exact value of the target company. (Wöhe, 1996)

3.3 The price/earnings ratio valuation method

Another commonly used method in company evaluation is the price/earnings ratio method which assigns a comparable publicly-traded company's price/earnings ratio to those of the target. Price/earnings ratio is defined as follows ¹² :

$$\text{P/E} = \frac{\text{Share price}}{\text{Earnings per share}}$$

However, Ballwieser (1991) points out the disadvantages of the method:

- Earnings are historical and say nothing about the future. A buyer is more interested in earnings trends that may carry into the future than current earnings levels.
- Earnings are defined by accounting standards. Being accrual based, earnings do not recognise the time value of money.

Whatever the various evaluations may show, the negotiated take-over price has to consider what the respective buyout company is able to support. In the end the management team might be confronted with a bidding situation and be tempted to offer a price, but the amount of leverage might exceed the debt service capacity of the LMBO company. In this situation, the financial advisers and bankers should ensure that any overpricing of the deal is avoided and that they do not exceed the maximum price which the management buyout vehicle can support (O'Brien, 1995).

3.4 Determination of the total financing volume

In the next step, the LMBO advisors calculate the total financing volume of the transaction which, according to Hoffmann/Ramke (1992), has the following elements:

Purchase price

+ costs for foundation of Newco and consulting fees

+ repayment of existing debt

+ investments, which should not be financed out of the cash-flow

= Total financing volume for an LMBO transaction.

¹² Definition according to Higson, 1995

3.5 Example for the determination of the total LMBO - financing volume ¹³

Share capital:	DM 20m
Reserves:	DM 50m
Equity:	DM 70m
Planned Net Cash-flow:	DM 34m
Long-term debt:	DM 30m
Calculated Potential long term debt:	DM 120m

3.5.1. Subtraction of long-term debt from potential debt volume:

Max. potential long term debt:	DM 120m
./. existing debt	DM 30m
= Available volume of LMBO debt	DM 90m

3.5.2. Calculation of necessary equity

Purchase price	DM 100m
./. available LMBO debt	DM 90m
= Necessary equity	DM 10m

3.5.3. Long term debt-service capacity:

LMBO volume	DM 120m	
<hr/>	<hr/>	= 3.52 years to pay back the LMBO debt
Net cash-flow	DM 34m	

Given the above restriction, the purchase price of the company should not exceed DM 90m. If the purchase price and consequently the resulting debt burden is too high, the target company risks failure in times of recession.

¹³ Example taken from Hoffmann/Ramke, 1992 Management buyout in Germany

III. The impact of debt on the capital structure of the LMBO company

Before beginning the next chapter which describes the steps for optimal structuring of an LMBO transaction, it is important to outline the role of debt in the LMBO structure. As management led buyouts are generally heavily financed by debt, it is necessary to assess and evaluate the impact of debt on LMBO company performance and to what extent leverage has a positive effect on company performance.

1. The development of debt in the capital structure of companies

According to evidence in the US (Yago, 1991), where the role of debt in the capital structure of leveraged buyout companies has been researched extensively, the higher cost of capital of US firms relative to their competitors can significantly weaken their competitiveness. According to studies by the International Trade Commission (1983), the weighted cost of capital in the US in the early 1970s was disproportionately high in comparison to other countries (the weighted average cost of various investments in the US was 10,7% compared to those in Japan for example with 4,1%). Therefore, the increase of debt in the company's capital structure was strongly influenced by the relatively low costs of debt capital. According to Yago (1991), US corporations steadily increased their dependence on debt from the early 1950s to the mid 1970s.

As a consequence of rising corporate debt levels in the US, many companies started to see leveraged buyouts as an attractive way to restructure their operations and improve their competitive positioning. Over the years, leveraged buyouts have resulted in a great number of ownership changes in the US, from 3.8 percent in 1981 to 21.7 percent in 1987, and have become an important part of the take-over market, moving on into the UK and Continental Europe.

According to Altman/Smith (1991), these highly leveraged transactions in the US challenged conventional wisdom of the time regarding the relationship between company value and capital structure. After a very successful period for LBOs in the US in the 1980s, a sharply increased default rate followed in the early 1990s, mostly on debt issued in highly leveraged deals. This development appeared to be a justification for those who favoured much more conservatively capitalised companies.

2. Capitalisation theory and the role of debt in leveraged buyout transactions

The relationship between a firm's capital structure and its true value was the subject of Modigliani's and Miller's work in 1958 which called the subject to the attention of the financial world. In their article from 1958, Modigliani and Miller argued that the relationship between a firm's debt and equity had absolutely no impact on its overall value. The only variables determining the firm's value were its future earnings in terms of expected cash-flow (Altmann/Smith, 1991). This method evaluates a firm based on the net cash-flow provided by its assets. Thus, a firm with underperforming assets may be priced in such a manner that its liquidation or break-up value exceeds its going concern value. If this is the case, then there is an opportunity for an 'arbitrage' which entails purchasing the equity of the firm and restructuring its asset composition to increase the value. In such an arbitrage there is an advantage to the use of debt. Since the goal is to acquire the capital gains which result from restructuring, the effective use of leverage multiplies the equity holder's return when the company is sold. In this context Kieschnik (1987) refers to this construction as a 'call option' in which the buyout group has bought an option on any added value created by restructuring the firm's asset structure.

Altman/Smith (1991) write further that when a company can potentially improve their value with the changes imposed by the new owners, they must have been strategically unsound, poorly managed and/or disproportionately capitalised. In such cases, full realisation of the company's value is only possible through management initiative and substantial changes in leverage.

3. The risk in using high leverage in buyout transactions

As will be described more in detail in the following sections leveraged buyout transactions in the US and Europe offered attractive investments opportunities in the last years and have made using debt in buyout transactions a common way of restructuring corporations. However, according to Roach (1989), a buyout structure plan must consider the inherent risk and the potential vulnerability of increasingly leveraged borrowers. In the US, for example, innovative financing techniques have been designed in order to minimise the impact of unexpected interest rate changes. The real test, however, is in times of recession when the crucial questions are if high leverage still has a positive effect on the return on equity ¹⁴ and how much interest the company will be able to cover in a deteriorating business environment. Shleifer and Visny (1992) and Kaplan and Stein (1993) write in this context that the difficulties that many leveraged transactions encountered resulted from excessive leverage, problems in disposing of non-core assets at predicted prices and problems in servicing the LMBO-debt when stable cash-flows became affected by recessionary conditions. These developments seem to have led to a reassessment of the degree of leverage the target company is able to support and also to the reliance on the secure disposal of assets (Wright and Robbie, 1997).

The next chapter will discuss the structuring process of LMBO transactions and how the level of internal and external financing is determined according to the cash-flow capacity of the target company.

¹⁴ Leverage-effect of corporate debt: debt, as a relatively cheap source of corporate funding, especially in companies targeted for a LBO, requires careful examination of the impact of debt on return on equity. The so-called 'Leverage effect' can only be positive if the return on capital of a company is greater than the interest paid for the existing debt. (Hölter, 1992)

IV. Structuring the transaction

The appropriate structuring of LMBO transactions has an important impact on the investors desired rate of return. According to Sahlmann (1990) the desired rate of return can be reached by investors applying several mechanisms which should encourage the managers/owners of the target to increase the value of the firm. Among those measures are cited information rights obliging the management team to provide periodic reports, the active involvement of the investors in their portfolio companies, incentive schemes like equity ratchets and compensations based on value created. However, the optimal structuring of the transaction at the initial stage of the deal will be of outmost importance for investors in order to reach their desired rate of return. Concerning the structuring of the transaction the different layers of external funding in an LMBO transaction may be structured as follows:

1. Debt/equity components

External funding for a typical management buyout is likely to come from a combination of sources, such as:

- Secured or unsecured debt providers
- Mezzanine providers
- Equity investors

1.1 Debt financing

1.1.1. Non subordinated, secured or unsecured debt (senior debt)

When issuing credits for an LMBO, banks prefer as a rule to provide non subordinated, secured debt based on the assets of the target firm. According to Hoffmann/Ramke (1992), senior debt is provided primarily by commercial banks and normally accounts for 50 percent to 60 percent of the LMBO financing. All senior debt in an LMBO structure implies certain legal and contractual obligations between the banks and the borrower. These include guarantees, first security interests, mortgage deeds and positive and negative covenants ¹⁵.

¹⁵ According to a research by Wright and Robbie in the quarterly review of the CMBOR summer 1995, buyouts involve a much higher use of both accounting and non-accounting based covenants than other types of corporate borrowing. There has been a marked increase in the range and tightness of debt covenants over the last five years, particularly for loss-making buyouts and those acquired from receivership.

1. 1.2. Subordinated debt (mezzanine)

The term ‘mezzanine’ applies to debt instruments that have unsecured equity characteristics and therefore carrying an equity risk that demands a higher rate of return. Very often this form of debt can be converted into equity in the form of warrants. In connection with the development of mezzanine financing in the UK, Wright, Normand and Robbie (1987) write that increasing price/earnings ratios in the context of LMBO purchase prices and the focus on cash-flow oriented financing were the main reasons for the popularity of mezzanine or intermediate finance in the UK.

In the beginning of the buyout movement in the UK, the usual instrument of mezzanine finance was preference shares. The new form of mezzanine finance that followed was structured as ‘quasi-debt’ ranking in one or various layers after senior debt, representing different levels of risk requiring a higher interest rate and often equipped with equity warrants. (Wright, Normand, Robbie, 1987).

From a general, non country-specific point of view, the following instruments are the most frequent in mezzanine financing:

- Subordinated loans in the form of zero coupon bonds or low interest bonds.
Subordinated loans which have previously discounted the future interest payments or low interest bonds carrying equity warrants.
- Seller’s notes
Seller’s notes are probably the most variable element in any structure. They can take first priority if they are in the form of a deferred consideration, or, as is more commonly the case, they can be subordinated, just ahead of management. Traditionally, seller’s notes are interest free and subordinate to all other debt. Frequently, they include the right to share in the company’s upside potential. In this case, sellers are seeking to retain a share in the future equity value of the company (Wright, Normand and Robbie, 1987).

- Unsecured loan stock or convertible unsecured loan stock ('quasi-equity')

These forms of debt seem to be of more use in large buyout transactions than in small ones due to their inherent degree of risk which could make them unattractive to loan-stock holders. However, they might be a useful financing instrument if the subscription of the same amount as risk capital would dilute the management stake to such an extent that it would de-motivate the management team (Wright, Normand and Robbie, 1987).

- Silent partnership

In this kind of mezzanine-financing, frequently used in German buyouts (Vest, 1994), the silent partner traditionally shares in the profit of the respective buyout company. Additionally, the parties might also agree on interest payments or on participation in the event of a loss in the target company. If a loss-sharing agreement is made, the partnership is considered 'quasi-equity' if the company is liquidated (Vest, 1994).

- High yield bonds (especially in the US)

High yield bonds are tradable bonds equipped with high interest rates due to the high risk caused by their subordination¹⁶.

2. Capital financing

2.1. Institutional and management equity

Leaving the area of debt financing, the next financing source takes into account the equity elements of the capital structure. Traditionally, the required capital structure for a leveraged management buyout is determined by calculating the volume which might be provided by bank facilities. This calculation identifies the 'financing gap' which has to be funded by the risk capital of management and financial investors. The equity share capital can be divided into different layers with different rights and priorities in the form of common stock, preferred stock or warrants provided by the buyout team and the financing institutions.

¹⁶ This kind of mezzanine became famous in the 1980s in the US, where these bonds are known as 'junk bonds'. Although there are no legal barriers for German firms to issue this kind of bonds the German junk bond market has been very slow to develop. In Germany, only the take-over of the European subsidiary Memorex from the US parent Burroughs is known to have been financed mainly by junk bonds (Seifert, 1991).

In certain buyouts, it may be possible to fund the purchase price entirely from personal resources of the management team, who may acquire all the ordinary share capital with the support of a bank. According to the statistics of the CMBOR (Spring 1997), in LMBOs with less than £10m financing the average proportion of equity held by management ranged from 55 to 68 percent between 1990 and 1996. In LMBOs with at least £10m financing, the average proportion of equity held by management ranged from 26 to 31 percent between 1990 and 1996.

From the result of these statistics it can be said that the larger the buyout, the lower the management's stake in the equity of the company and the higher the involvement of financial institutions. According to Wright, Normand and Robbie (1987), a financing package of a large LMBO may include the following components:

- Bank term loans (Senior Bank Debt)
- Loan Stock ranking after the banks but before the equity
- Equity
 - Ordinary shares - usually signed by management and financial investors
 - Preference shares - usually signed by financial investors

Referring to the use of preference shares by financial investors Norton and Tenenbaum (1992) write that the inclination of investors for preference shares is not based on deal size, financing stage, technical risk or type of product. According to a research by Sahlman (1988) investors prefer the use of preferred stock due to the fact that it places them in a preferred position relative to common equity investors with respect to cash flow and liquidation. Concerning the use of debt Norton and Tenenbaum (1992) found evidence that positive influences on debt finance was based on the expectations that the target company

- would generate taxable income
- would have collateral assets
- and would have products resistant to economic cycles.

V. After the buyout/Exit strategies

A key issue in planning an LMBO transaction is when and through what exit routes investors can realise their gains. Jensen (1989) wrote in this context that an important issue of leveraged buyouts was investors' prospects of getting their return without need of a public listing. Capital restructuring or a trade sale to another group were considered as equally important exit alternatives. According to Wright, Thompson and Robbie (March 1990), the choice of the right exit alternative depends on three sets of interests: management, institutional investors and the buyout company itself. For the existing management, realisation may be a means to repay the personal loans to finance the management stakes. For the investors, realisation enables them to obtain the desired rate of return and to release capital for new investments. For the buyout company itself, the right exit alternative might enable the company to raise new funds to finance expansion. The choice of the right exit alternative will combine the different interests of the parties involved and will have to take into consideration the status and level of the existing conditions in the respective country. (The chosen exit alternative should satisfy all the interests of the different parties involved as well as the conditions of the corresponding country.)

The realization of an investments may be achieved through the following exit channels:

- Going public
- Trade Sale
- Secondary Buyout
- Receivership

According to Wright and Robbie et al (1994) it is important to take into consideration that the timing and the form of the realization must aim at having the objectives of all parties involved being satisfied. Barry et al (1990) found evidence in their empirical investigation of IPOs by venture-capital-backed companies between 1978 and 1987 that the quality of the monitoring services of the involved financial investors appeared to be recognized by capital markets through lower underpricing of IPOs of the respective companies.

1. Going public

The main goal for a large proportion of LMBOs is to be floated on the stock market. The main admission requirements for an official stock market listing in the UK and Germany are as follows:

UK:

Most important admission criteria for listing on the official stock exchange:

- Trading record of 3 years
- Minimum stake held by outside shareholders 25%
- Minimum market capitalisation of £700.000

Most important admission criteria for the listing on the Unlisted Securities Market (USM):

- Trading record of 2 years
- Minimum stake held by outside shareholders 10%
- No minimum limit for market capitalisation

(Source: Wright, Normand, Robbie, 1987)

The flotation of small to medium sized companies was made possible by the former Unlisted Securities Market (USM) created in 1980 and the opening of the Alternative Investment Market (AIM) in 1995¹⁷. These markets for small to medium sized companies have provided a stimulus to a larger number of LMBO companies which would have otherwise not floated. In the first quarter of 1996, for example, the number of flotations rose sharply to 46 from 22 in 1995, including the issues on the Alternative Investment Market (Financial Times, Management Buyout, May 1996).

¹⁷ Established in 1980, the USM was designed to attract small- to medium-sized companies. At that time, a company needed a five-year trading record to qualify for the main market listing but only 3 years for the USM. However the USM was closed at the end of 1996 and was succeeded by the AIM in January 1995. The need for an exchange such as the USM has declined with the gradual easing of the rules for companies seeking a listing on the main market and with the opening of the AIM.

Germany

Most important admission criteria for listing at the official stock exchange (Amtlicher Handel):

- Legal form 'corporation' for at least 3 years
- Sales turnover of minimum DM 100m
- Minimum nominal value of the emission DM 2.5m

Most important admission criteria for listing at the Geregelte Markt:

- Legal form 'corporation' for at least 1 year
- Minimum nominal value of the emission DM 500.000
- Introduction at the exchange possible through non-bank financial institutions

(Source: Luippold, 1992)

In Germany, due to the strict conditions for admission to the official stock market and the difficulty of finding an institution to accept responsibility for the transaction, ('Prospekthaftung'), the demands on LMBO companies were traditionally very high, especially for small to medium sized companies.

However, in support of the flotation of small- to medium-sized companies, which represent the important German 'Mittelstand', the 'Geregelte Markt' (1987) and the 'Neue Markt' (1996) were created to give an impetus to Germany's inactive equity culture (Financial Times, May 13, 1997). These markets have less strict admission criteria and therefore offer small to medium sized companies the possibility of external funding through capital markets (Luippold, 1992).

The statistics on the number of flotations in 1994 show that, although the number of IPOs remained low in Germany with 15 transactions (Lake, 1995) compared to 256 new issues in the UK (Financial Times, 1997), innovations in the market place - like the New Market or increasing capital needs and a slowly changing equity culture in Germany - resulted in an increase to 20 IPOs in 1995. (Lake, 1995).

2. Sale of the company to another company (Trade sale)

If the stock market listing is impossible because of the required admission criteria, the sale of the LMBO company to another investor, to an LBO-group or to another company is a viable alternative. In the UK, trade sales were the most common exit form for LMBOs in 1994 with 44 percent (CMBOR, Summer 1995). In Germany - according to the statistics of the BVK in 1994 - buy-backs were the most common exit forms for LMBOs. They accounted for 58 percent of all transactions, trade sales for only 26 percent.

3. Releveraging/Secondary Buyout

In the UK and Germany, it has become increasingly common for an LMBO team to execute a second buyout, replacing the original investors with new investors. According to the statistics of the CMBOR (Quarterly review summer 1995) this kind of exit was implemented by only 3 percent of all buyout companies up to 1987, but increased to over 9 percent in 1994. In Germany, this exit channel accounted for 3 percent of all exits in 1994. According to LMBO experts (O'Brien), this transaction requires all the management team's negotiating expertise in order to convince new investors to accept the risk inherent in a newly leveraged buyout.

VI. Summary concerning the Management Buyout concept

To sum up the previous sections on the management buyout concept, it can be said that several factors are responsible for the success of a leveraged buyout. However, one crucial aspect which is continuously emphasised by LMBO managers and financiers is the necessity to adopt the most appropriate structure for the transaction from the beginning. The variety of different financing instruments like equity, mezzanine, senior debt or seller's note allows LMBO managers to find a structure which gives the company enough flexibility to survive in a declining economic environment. However, in periods of increased LMBO activity where divested company units or private companies are sold via an 'auction-process', vendors try to get the highest possible purchase price. Whatever take-over prices the respective auctions might generate, buyers must carefully examine the cash-flow capacity of the target company to determine the leverage the company is able to support.

A second important issue for the investors and the management team are the existing exit alternatives available for the respective LMBO company. In the UK small- to medium-sized LMBO companies have the possibility to be floated on the former USM or now on the AIM market which have less stringent admission criteria than the official exchange.

In Germany, the exit possibilities are less varied than in the UK due to the less developed equity culture. Although innovations like the ‘Geregelter Markt’ or the ‘Neue Markt’ have stimulated Germany’s equity culture, the number of IPOs in Germany has remained low compared to the UK.

To conclude this section about the management buyout concept, it is important to realise that LMBO transactions cannot be implemented homogeneously across Europe. Each European country has adopted the idea from the US and has had to adapt it to its own interests. The structuring of LMBOs is driven by internal infrastructure and is closely linked to both legal and tax requirements, the level of sophistication of the financial markets and the existing macro- and microeconomic factors in the corresponding countries.

By researching the different conditions surrounding LMBO transactions in the UK and Germany, the following section will present the different macro- and microeconomic factors which have influenced LMBO activity in the UK and Germany and will present a comparison of these factors and provide an explanation for the difference in LMBO activity in the two countries.

C. Comparison of macro- and microeconomic LMBO factors in the UK and Germany

In researching mature LMBO market places like the US and the UK it was evident that there are a number of key factors which contributed to the rapid development of LMBO activity. According to Chiplin, Wright and Coyne (1988) these factors can be divided into the following three broad areas:

- The generation of opportunities
- The infrastructure to complete a deal
- The opportunities available for the realisation of investments

These broad areas have been further subdivided by the authors into the following factors which were found to have a profound influence on the market for leveraged management LMBOs:

- The industrial structure and the need for organisational change
- The nature and development of venture capital firms
- Existing practice and flexibility in banking attitudes
- The acceptance and the development of the stock markets

In addition to these macroeconomic factors, there are several microeconomic factors which equally influenced LMBO activity:

- The type and structure of (target) companies
- The sector in which target companies operate
- The nature and the role of banks
- The willingness of owners to accept an LMBO
- The willingness of managers to become owners

According to Chiplin, Wright and Coyne (Ten country study), a country's potential for LMBO activity depends on the combination and the strength of each of these micro- and macroeconomic elements. Problems or weaknesses in one or more of them can seriously retard the market development in the respective countries. In the following section, research on the above macro- and microeconomic factors are presented and evaluated, followed by a comparison of the key factors in the UK and Germany and the resulting explanation of the different levels of LMBO activity in these countries. The following part is divided into five sections presenting the following issues:

Section I and II: Macroeconomic key factors in the UK and Germany

The first and second chapters will give an overview of the economic situation and industrial structure in the countries under examination and characterise the LMBO environment, describing the main sources and the volume on the respective markets. The third chapter will evaluate the role of financial investors, venture capital funds and banks. In the fourth chapter, exit possibilities for investors will be examined as well as the impact of LMBOs on the national economy. The fifth chapter presents perspectives for the LMBO market in the UK and Germany.

Section III and IV:

The first and second chapters of this section will describe the form and structure of potential target companies in their respective countries and sectors. The third chapter examines the role and influence of banks on companies in the UK and Germany. The fourth chapter presents the motives of managers and owners who participate in LMBO transactions with respect to the entrepreneurial culture in each country.

Finally, section V will summarise the comparison of the key micro- and macroeconomic factors which have influenced LMBO activity in the past and will continue to influence in the future.

I. Macroeconomic LMBO factors in the UK

1. Economic background

1.1 Economic situation

The development of the UK LMBO activity and the respective LMBO sources is closely connected to changes in the economic environment of the UK. At the beginning of the buyout movement in 1981, the UK economy was experiencing a deep recession, which caused a tremendous amount of receiverships and demanded a radical review of company structures and activities.

In the following general industrial recovery from 1982 on, a large number of groups applied post-recession measures which led to a growing number of sources for LMBOs from divestment. In the early 1990s, recession emerged again and lasted until 1992, when the economic recovery in the UK came full circle. The UK OECD report in 1996 stated that the fundamentals for continuing medium-term growth and low inflation in the UK would remain positive. It seems that the UK economy, after 15 years of microeconomic reform had become more flexible, competitive and less resistant to inflation despite modest growth in inflation and a lower employment rate.

1.2 Industrial structure - competition in the UK

The United Kingdom had long recognised that competition is in many ways the driving force behind economic success. Due to the fact that competitive pressure demands increased efficiency and productivity as well as new and improved products, the UK saw a need for an active competition policy. Two government papers in 1994 and 1995 reinforced the importance of competition policy in maintaining competitiveness. In a wider perspective, competition policy is seen as the one element of strategy that can improve economic flexibility. The UK OECD report of 1996 states that two developments over the past twenty years had a significant effect on competition in the UK:

The first development came with the founding of the “Common European Market” in 1992, which, for many industries, accentuated the competition from abroad and made competitive discipline in domestic companies stronger.

The second development were the privatisation and deregulation programs since 1980 which brought the performance of various sectors under close scrutiny. The pressure applied by each of these factors have led to substantial improvements in productivity and efficiency in the UK.

2. Description of the LMBO environment in the UK

2.1 Economic environment for LMBOs

In the early 1980s, LMBOs became a significant factor on the overall mergers and acquisitions market and played an important role in the restructuring in the UK. Due to recessionary conditions in the beginning of the buyout movement in the late 1970s and early 1980s, LMBOs resulted mainly from the divestment of UK parent companies at 60 percent and foreign parent companies at 14 percent, from family-owned businesses at 12 percent and from receivership at 11 percent (Chiplin, Wright, Coyne, 1988). According to Wright, Thompson and Robbie (1991), buyouts were seen in this period of recession as an alternative to the full or partial closure of business units in a period of recession or as a means to save companies which were already in receivership.

As economic recovery followed after 1982, LMBOs from receivership became less important accounting for only 1.7 percent in 1986. Management LMBOs were mainly implemented in the divestment of divisions or subsidiaries from conglomerates, domestically at 59 percent and internationally at 14 percent, with a an increase in the number LMBOs of family-owned companies to 21 percent. According to Chiplotin, Coyne and Wright (1988), the pattern of LMBOs in the mid 1980s in the UK reflected the decision of parent companies to dispose of divisions or subsidiaries which were financially healthy but which didn't fit to the group strategy.

Between 1987 and 1989, the volume and the value of management buyout transactions increased sharply with a record of 375 transactions and a total value of 3,8 billion pounds in 1989 (CMBOR, June 1996). These developments took place as new financiers and financing techniques were introduced into the market and the funding of larger LMBOs was made possible through greater availability of funds. Growing competition between financial institutions which began to show interest in financing management LMBOs was an added impulse (Wright, Normand and Robbie, 1990). The merger wave¹⁸ observed from 1987 to 1989 provided yet further incentive for LMBOs due to the divestment of unwanted subsidiaries following major acquisitions.

During the recession of the early 1990s - as in the early 1980s - LMBOs played a major role in restructuring failed or failing businesses and were identified, in an environment of generally declining performance, as the only viable means to sell a company or to spin-off divisions or subsidiaries (CMBOR, June 1996). After having virtually disappeared at 0.8 percent in 1989, LMBOs resulting from companies in receivership then rose to 20 percent, whereas LMBOs from divestment and family take-overs with 49 and 24 percent respectively remained important buyout sources (CMBOR 1997).

From 1992 on, economic recovery in the UK came full circle. In the context of management buyout activity, this meant that LMBOs resulting from the recession related divestment programmes of the early 1990s slightly declined and divestments became more important due to strategic repositioning. In 1994, divestments accounted for 54 percent, down from 52 percent in 1991. Receivership transactions remained low at 3.9 percent in 1994 and LMBOs from family-owned companies became more important at 35 percent of the total transactions (CMBOR, Spring 1997). In 1994, privatisation regained position as an LMBO source due to the privatisation programs initiated in July 1994.

¹⁸ M & A volume in the UK from 1985 to 1989 developed as follows according to statistics from the Ten country study of Chiplin, Coyne and Wright:
in 1985: 474 transactions with a total transaction volume of 7 billion pounds
in 1989: 1.330 transactions with a transaction volume of 27 billion pounds

Although there had been relatively few LMBOs of state-run enterprises before 1986, they became the most common form in the following years. Privatisation offered opportunities for manager and employee ownership when flotation was not possible, and thus became a popular source. In 1994, LMBOs from privatisation became the fourth common source amounting to 6 percent of all transactions. In 1995 and 1996 the value of LMBOs increased from £2.5 bn in 1994 to £2.8 bn in 1995 and £3.6 bn in 1996, almost reaching the peak level of 1989 with £3.8 bn (CMBOR, Spring 1997). In 1995 and 1996 divestments were still the most important source for LMBOs accounting for 50 percent and 47 percent of all transactions followed by LMBOs from family ownership by 40 percent and 41 percent in the respective years (CMBOR, Spring 1997).

2.2 Data on UK LMBOs

The most reliable and best researched data of all European countries concerning LMBO activities comes from the Centre of Management Buyout research (CMBOR) resident in Nottingham/UK. The CMBOR was founded in March 1986 by BZW Private Equity Limited and Deloitte Touche Corporate Finance to monitor and analyse management LMBOs comprehensively and objectively. It has developed a wide-ranging and detailed database and is the only set of statistics on management LMBOs and buyins in the UK and Continental Europe.

2.3 Main sources for UK LMBOs

In the UK there are five main sources for LMBO transactions:

- Divestment of national and international companies
- Sell-off of family companies
- Privatisation of state-owned companies
- Going private deals
- Receivership companies

Table 1: Development of LMBO sources

Development of LMBO sources								
(in percent)								
	Pre-	1982	1981	1986	1991	1994	1995	1996
Divestment domestic		59,5	59,5	58,8	43,4	41,3	40,2	38,8
Divestment foreign		14,7	14,7	13,7	9,7	12,6	10,1	8,2
Family		11,1	11,1	19,6	24,0	35,3	39,9	40,9
Going private		0	0	0,7	1,4	0,8	0,6	1,3
Privatisation		2,6	2,6	5,5	2,3	6,1	4,2	6,3
Receivership		12,1	12,1	1,7	19,2	3,9	5,1	4,5
Total		100	100	100	100	100	100	100
Number		190	239	316	447	404	356	379

(Source: CMBOR/BZW Private Equity/Deloitte & Touche Corporate Finance 1987, 1997/Initiative Europe 1995)

As seen in the above table the wide range of buyout sources underlines the diversity of the UK market place. According to Wright, Normand and Robbie (1990), much of the initiative for LMBOs in the early 1980s came from the desire to take over companies close to receivership due to the recessionary conditions in the UK. According to the database of the CMBOR (Wright, Normand, Robbie 1987), over 12 percent came from this source in 1981.

With the end of the recession in 1982, receivership declined in importance to 1.7 percent in 1986 from 12 percent in 1981. Divestment from UK parent companies became the most common LMBO source at 59 percent, followed by LMBOs from family-owned companies at 21 percent in 1986.

LMBOs of firms quoted on the stock market, so-called 'going privates', first appeared in the UK in 1985. Evidence examined by Wright, Normand and Robbie (1990) suggested that LMBOs from quoted firms have only slowly increased since 1985, reaching their peak of 2.4 percent after the stock market crash in 1989, when a number of deals were made.

In the beginning of the 1990s, recession emerged again and receivership regained importance as an LMBO source amounting to 20 percent, while divestment of UK parent companies at 43 percent and from foreign parent companies at 10 percent continued to be the most common LMBO source. LMBOs from family-owned companies increased to 24 percent of all transactions.

Towards the mid 1990s, the economic recovery in the UK came full circle and the distribution of LMBO sources reflected this development. In 1994, the major LMBO sources were large strategic divestments at 54 percent and LMBOs from family-owned companies at 35 percent. The privatisation program of the public sector¹⁹ initiated in July 1994 increased the LMBOs from this source to 6.1 percent. In 1995 major buyout sources have been large strategic divestments with 50 percent and public sector privatisations with 4.2 percent. According to Wright and Robbie (CMBOR, Winter 1995/96) the increase in the number of buyouts from privately owned sources with 40 percent have been driven by the growth in secondary buyouts of venture backed companies. In 1996, divestments remained the most important buyout source with 47 percent closely followed by LMBOs from private vendors reaching 40 percent of all transactions. According to Wright and Robbie (CMBOR, Spring 1997) the share of buyouts rose notably in advance of the General Election taking place in the spring of 1997.

3.4 Volume of the UK LMBO market

Like in the US (Chiplin, Coyne and Wright, Ten country study), the volume of LMBO transactions in the UK has continuously increased. As shown in the following table, the overall value of LMBOs in 1981 amounted to £180m from 143 transactions. By 1987, the transactions had increased to 344 and the transaction value had breached the £3bn barrier for the first time. These developments took place as new financing sources and techniques were introduced into the market allowing for the funding of larger LMBOs against the background of high stock market levels until October 1987 (Chiplin, Coyne and Wright, 1988).

¹⁹ According to the CMBOR (Winter 1995/96) the government's privatisation programme included large sell-offs from British Coal and British Rail.

In 1995 and 1996 the total value of buyouts have increased to £2.8 bn and £3.6 bn the second highest level ever reached since the record year of 1989 with £3.8 bn. This increase in volume was driven by the ongoing strategic disinvestments and public sector privatisations and the growth in the number of LMBOs from privately owned sources resulting of secondary buyouts of venture backed companies.

Table 2: Volume of the UK buyout market from 1981 to 1996

Year	Number	Value (million pounds)
1981	143	180
1982	237	346
1983	234	309
1984	240	408
1985	262	1,141
1986	316	1,178
1987	344	3,215
1988	375	3,715
1989	375	3,893
1990	486	2,452
1991	447	2,158
1992	451	2,549
1993	386	2,156
1994	404	2,592
1995	372	2.819
1996	402	3.607

Source: (CMBOR/BZW Private Equity/Deloitte Touche Corporate Finance, Quarterly review, Winter 1995/96, Spring 1997)

From 1989 on, the number of LMBOs steadily increased with the total value remaining at a level of £2.5bn. As the total transaction volume, the average deal volume also increased dramatically. For the year 1981, the CMBOR database (CMBOR Spring 1997) revealed that 84 percent of all transactions had a transaction value under £1m, 2 percent between £10-25m and 0.4 percent over £25m. In 1994, however, 20 percent of all transactions had a transaction value under £1m, 8 percent between £10-25m and 7 percent over £25m (CMBOR Spring 1997). In 1996, associated with the rises in average value of buyouts, there has been an increase in importance of middle and larger transactions where buyouts between £5 m and £25 m increased from 20 percent in 1995 to 23 percent in 1996. In contrast hereto, transactions below a transaction value of £1 m declined from 21 percent in 1995 to 13 percent in 1996 (CMBOR, Spring 1997).

3. Financial investors in UK LMBOs

3.1 The role and importance of venture capital firms

Until the mid 1970s, the venture capital industry in the UK was dominated by a small number of pioneers and specialists. An established market for professionally raised and invested pools of equity capital for entrepreneurial firms was limited due to the fact that, for many years, the provision of equity capital had been the exclusive providence of entrepreneurs in the case of private companies and the London Stock Exchange in the case of public companies (Lorenz, 1989).

There were about a dozen professionally managed venture capital companies in operation at the end of the 1970s. (Lorenz, 1989). It is only since the mid 1970s that the UK venture capital community has been an industry of substance, essential impulses for this development came from the conservative government of Prime Minister Margaret Thatcher. In 1989, the volume of venture capital in the market in the UK amounted to ECU 11,8 bn (Karsunky, 1992) and increased to ECU 25,8 bn in 1996 which presents 45 percent of the total venture capital volume in Europe with ECU 58,6 bn (European Private Equity Survey, 1997). As presented in the following table, the main institutional sources of venture capital include pension funds, insurance companies, banks and finally corporate investors and government agencies.

Table 3: The Sources of British venture capital

Pension funds	41.4	percent
Insurance	14.9	percent
Banks	10.2	percent
Private	5.8	percent
Corporates	3.8	percent
State	2.3	percent
Others	21.6	percent

(Source: European Private Equity Survey, 1997)

3.2 The role and importance of venture capital funds

Further impulses for the development of the venture capital industry came with the introduction of venture capital funds in the UK in the middle of the 1980s. Financial investors who had directly invested in small and medium entrepreneurial businesses before, recognised the advantages²⁰ of using venture capital funds in order to achieve their investment goals. For venture capitalists, the creation of investment funds brought the following advantages with respect to their investment activities:

- Increased flexibility with respect to investment in buyout opportunities
- More freedom to manage their own portfolio
- Greater liberty in purchase price negotiations

As presented in the following table, significant amounts of venture capital in form of investment funds were in the hands of the following financial investors between 1992 and 1996:

²⁰ Advantages for the corporate venturer: in addition to the financial reward, the venture capitalist's expertise and knowledge as well as the fund's deal flow are accessible.

Table 4: The most important UK venture capital funds from 1992 to 1996

Phildrew Ventures Third Fund	1992	£108m
Schroders UK Buyout Fund	1993	£140m
Legal & General 1995 Fund	1993	£120m
Charterhouse Capital Partners V	1994	£338m
Morgan Grenfell Equity Partners	1994	£300m
Candover 1994 Fund	1994	£270m
HSBC Private Equity Partnership	1994	£170m
3i UK Investment Partners	1995	£200 m
Apax Ventures V	1995	£164 m
Cinven Fund	1996	£300 m
Phoenix Equity Partners II	1996	£133 m
Schroder UK Venture Fund IV	1996	£110 m

(Source: *Acquisitions Monthly*, March 1997)

3.3 The role and importance of banks

The discussion of the role of UK banks in leveraged corporate finance transactions like the LMBO must consider the still prevailing ‘Trennbankensystem’ in the UK which separates the activities of deposit banks or commercial banks and investment banks. With respect to the providers of LMBO financing products, one must distinguish between deposit banks and investment banks. In addition to the traditional deposit and credit bank products, deposit banks offer the entire spectrum of banking products through their subsidiaries and holding companies.

In the course of an LMBO transaction, the deposit banks offer the participation in senior debt facilities, but the investment bank acts as project leader of the transaction (Karsunky, 1992). Investment banks with specialities in certain banking areas like corporate finance and corporate engineering have developed a huge expertise in the area of Mergers & Acquisitions and especially in the area of leveraged financial transactions like LMBOs.

As opposed to deposit banks, investment banks do not provide debt facilities, but rather supply the target company with equity capital from their own LMBO funds and act as an advisor throughout the transaction.

According to the research of Braun (1989) the following banks are the most active debt providers in the UK LMBO market:

Table 5: Most active debt providers for LMBOs in the UK

1.	Bank of Scotland
2.	Natwest
3.	Barclays
4.	Standard Chartered
5.	Royal Bank of Scotland
7.	Lloyds Bank
8.	Bankers Trust
9.	Citibank
10.	Schweizer Bankverein

(Source: Braun, 1989)

4. After the LMBO

4.1 Exit possibilities

An important aspect for LMBO investors is the availability of exit routes by which they can realise their gains. The CMBOR conducted a survey of LMBOs between 1986 and 1996 of which the results concerning exit routes are shown in table number six.

4.1.1 Going public

In the first exits of the mid 1980s, going public seemed to be the most frequent exit route at 37 out of 78 exits in 1986. The main goal for a large proportions of LMBOs was to obtain flotation either on the Stock Exchange or the Unlisted Securities Market (USM), which offered less stringent admission criteria than the full listing²¹ (Wright, Normand and Robbie, 1987).

²¹ For details on admission criteria see part A, V, 1. going public

From 1990 to 1992, going public became less and less frequent, only 2 out of 123 exits sought a listing. Post-recession going public has again become the second frequent exit channel in the UK after trade sales since 1993.

From 1994 to 1996 the numbers of flotations increased significantly to 12 and 6 percent in 1996 in comparison to previous years from the early 1990s which had been negatively affected from the poor after-market performance of a small group of larger buyouts. A major change from previous years from the early 1990s was the floating of buyouts on markets other than the Official list, for example the AIM (CMBOR, Spring 1997).

4.1.2 Trade sales

Sale to a third party was seen as an increasingly attractive alternative to going public. In 1986, already 34 of 78 exit routes were trade sales to third parties. From 1987 on trade sales exceeded going public as exit alternative for the first time and kept its position as most frequent exit alternative with 80 trade sales out of 181 exits in 1994. The reason for the success of trade sales was mainly due to the fact that smaller LMBOs or those without requisite track record could not easily get a stock-market quotation, so trade sales were a more feasible exit option. They were also considered appropriate exit alternatives when the management was not strong enough to lead a floated company (Wright, Normand and Robbie, 1987). In 1995 and 1996 trade sales continued to be the most important exit channel representing 50 and 48 percent of all exits in the respective years.

4.1.3 MBO/MBI

Occasionally, a new set of investors may replace the original ones, making a second MBO an alternative exit route, although to date it has been the least frequented exit route in the UK. A second LMBO transaction may take place when the original institutional investors are replaced, the existing buyout group is enlarged or an external manager is brought in order to participate in a LMBI transaction. In 1996, secondary LMBOs reached its highest level with 15 percent which was also confirmed by the fact that the increase in numbers of buyouts from privately owned sources has been driven by the growth in secondary buyouts of venture backed companies (CMBOR, Winter 1995/96).

4.1.4 Receivership

Receivership, as an exit route, occurs when projections were made on over-optimistic assumptions or when a sudden decline in the business environment put the company at risk of failure. Receivership exits in the UK reached a peak in the recessionary conditions between 1990 and 1992 where 92 out of 152 exits resulted in receiverships. In contrast hereto, in 1995 and 1996 buyouts from receiverships declined amounting to 26 percent and 21 percent in the respective years.

Table 6: Distribution of UK exit routes

Year of Exit	Trade Sale		Flotation		MBO/MBI		Receivership		Total	
	Number	%	Number	%	Number	%	Number	%	Number	%
1986	34	43	37	47	-	-	7	10	78	100
1987	40	49	33	40	3	4	6	7	82	100
1988	52	50	34	34	9	8	9	8	104	100
1989	85	63	11	8	13	10	26	18	135	100
1990	46	37	3	2	13	10	62	51	124	100
1991	29	24	2	2	4	3	88	71	123	100
1992	42	28	7	4	11	7	92	61	152	100
1993	60	37	31	19	17	10	55	34	163	100
1994	80	44	43	24	16	9	42	23	181	100
1995	81	50	20	12	19	12	42	26	162	100
1996	91	48	30	16	29	15	39	21	189	100

(Source: CMBOR/BZW Private Equity/Deloitte & Touche Corporate Finance, Management LMBOs, Spring 1997)

The average age of the LMBO when exited was the subject of research by Wright, Thompson, Robbie and Wong (1995). The results showed the cumulative exit status of buyouts in the long term post-buyout period. Empirical evidence revealed that the proportion of buyouts which had not yet exited in any form declined monotonically, so that seven years after the buyout some 40 percent of the sample had exited.

The greatest number of exits occurred 3 to 5 years after the buyout. The research also showed that after year seven, 60 percent of the sample was still privately owned, indicating that the LMBO can also become a long term form of organisation.

4.2 Main impacts of LMBOs on the UK economy

Like in the US, LMBOs play an important part in the way UK corporations deal with the pressures of a highly competitive global economy. Deconcentration and deconglomeration have been the central tendencies of the latest wave of restructuring in the UK.

John Coyne and Mike Wright (1985) describe LMBOs in the UK as a means for the necessary realignment of firms as an economy evolves. In the past, the trend in corporate activity had been to achieve additional growth through mergers and acquisition activity which led to the formation of many conglomerates. This trend was significantly reversed during the 1970s and into the 1980s and, according to Coyne and Wright (1985) much of the LMBO activity may be part of the reaction to this period of acquisition activity.

In the following period of recession many conglomerates dismantled and attention has been focused on the divestment activities of UK companies rather than on their merger and acquisition activity. Thus, Coyne and Wright (1985) conclude that reactions to poor performance, the emergence of managerial diseconomies and the more favourable climate for independent small business have all contributed to the role of the LMBO as part of the evolution of the economic structure.

Research by Bannock for 3i (1990) concerning the economic impact of LMBOs came to the following conclusion:

“MBOs are good for managers. For vendors MBOs have solved succession problems in family-owned businesses and helped overdiversified companies to get back to core activities and to raise cash which they believed can be more profitably invested elsewhere. ... MBOs are also good for the professional advisers and other intermediaries involved.

Buyout activity has helped to promote the spectacular growth of the venture capital industry in the past decade, and the response of this industry has made the rapid growth in MBOs possible. Finally, MBOs are good for the economy.”

5. Perspectives for the UK LMBO market

To date, leveraged management buyouts have become well established in the UK as a major element in corporate restructuring. The 1980-81 recession and subsequent competitive pressure seem to have forced companies to concentrate on core activities. Although the UK seems to have overcome the recession, these pressures are unlikely to go away and should increase as global competition continues to intensify. Once the mechanism had been established, the opportunities remained relatively constant and the sources of management LMBOs reflected the state of the economy, be it recession or economic recovery. Therefore there need be no fear that lack of buyout opportunities will severely curtail the LMBO activity in the future.

According to Bannock (1990) a large number of family-owned businesses will probably face succession problems in the coming years, while the expansion of the small and medium-sized corporate sector will eventually create more opportunities for LMBOs over the next two decades. At the same time, larger corporations have enormous scope for spinning off subsidiaries. The prospect of managers owning a stake in the company they work for has also become more favourable in recent years so that both the supply of companies for sale, and the will and ability of managers to buy them, seem assured.

II. Macroeconomic LMBO factors in Germany

1. Economic background

1.1 Economic situation

Following the period of reunification in 1989, Germany enjoyed a period of post-reunification euphoria with growth rates well above the European average. However, when the recession caught up with Germany in 1993, the country experienced a considerable decline in gross domestic product of 1.3 percent which was the sharpest the country had seen since World War II. In 1994 however the recovery of the German economy gained strength and the economy had a positive growth rate of 2.25 percent with the main driving force being the exports of goods which increased by 9 percent. (OECD Germany, 1995).

However, despite these positive factors, Germany has wrestled with structural problems like a relatively weak private consumption with an increase of only 1.3 percent, as a result of a decline in disposable income. According to OECD reports (Germany, 1995) wage incomes grew by less than 0.5 percent due to declining employment and more flexible work patterns, resulting in lower overtime pay and cuts in benefits such as the Christmas bonus. Although exports were increasing, they suffered from a strong Deutschmark and high labour costs which were increased by 3.5 percent in 1995 and 1996 respectively. In addition, an agreement between the government and the unions reached in 1990 reduced the working week to 35 hours as of October 1995 which was additionally increasing labour costs by 2.8 percent.

The short recovery from recession Germany experienced in 1994 ended in the last quarter of 1995 when the economy went into reverse. This situation which was aggravated by an unusual hard winter, continued into 1996 where economic growth reached a GDP rate of 1.4 percent compared to 2.1 percent in 1995. However, factors like inflation which remained low at 2 percent and the decline in the cost of domestic products which was helped by the decline in Germany's historically high labour costs gave reason for a slightly more positive outlook for the German economy in the future (Initiative Europe, 1997).

1.2 Industrial structure

Before the early 1990s and especially before the recession emerged in 1993, diversifying acquisitions by industrial firms in Germany were relatively low, which made LMBOs resulting from the restructuring of firms and the refocusing on core-activities rare.

However, increasing competition and ongoing globalisation with respect to the “Common European Market” in 1992 combined with the impact of recession starting in 1993 led to an industrial restructuring which affected both national and international groups as well as the important small to medium-sized companies trying to remain competitive in a changing economic environment.

1.2.1 The strategic repositioning of national and international groups

With respect to the ongoing globalisation of markets - especially in the context of the “Common European Market” - almost every European company was forced to examine its current business strategy and decide whether to expand or restrict their existing activities and whether to enter into new markets and additional business areas. The free trade zone of the European market required stronger and more efficient company units but equally an extremely focused company strategy. Large companies found themselves under pressure to review their performance which resulted in disposing of under-performing group assets and returning to core-activities (Luippold, 1992). The business consultant Roland Berger (1990) summarised this development in the following sentence: “In view of 1992 companies must move from being good at a lot of things in their home market to being good at one thing in every market”.

According to a study by Luippold (1992), the potential for restructuring in German industry is enormous. Especially the established, traditional groups have far too diversified structures and not enough focus on their strengths. Much of these diversified structures resulted from mergers and acquisition activity in the past years, were unprofitable and therefore had to be supported by the other profitable units of the group (Berger, 1990). In addition to this company restructuring, companies in Germany started divestment activities in the context of a new portfolio management concentrating more on core-activities. As a consequence, several profitable and interesting units were also spun-off in order to release financial resources and management capacity which could then be used for to expand existing core activities (Luippold, 1992).

1.2.2 The strategic repositioning of small to medium-sized companies

The necessity to respond to increased competition in the context of the “Common European Market” was also an important aspect in repositioning and restructuring small- to medium-sized companies in Germany. These companies had to face the fact that they would not only have to compete with their traditional competitors in the future, but also with new contenders on the new common market.

Therefore, in order to secure the going concern of their companies, German Mittelstand companies owners were forced to analyse the new macroeconomic environment and to respond actively with the necessary changes in the management of their companies.

In the context of the changing industrial environment from the beginning of the 1990s on, the following chapter will give an overview about the development of LMBO activity since the late 1980s which is closely associated with the changing economic environment in Germany.

2. Description of the LMBO environment in Germany

2.1 Economic environment for LMBOs

From the beginning of its existence in the late 1980s the German LMBO market has been slow to develop. According to the statistics of the CMBOR (Winter 1995/96) the number of LMBOs in 1989 amounted to 25 deals. The underlying reasons for this were the stable macroeconomic environment in Germany making divestments and the sale of family-owned companies less urgent, the highly remunerated managers unwilling to take risks, the strong relationship between banks and firms and the underdeveloped venture capital and stock markets.

However, due to an economic downturn in the early 1990s, industries had to fight against inefficiencies such as outdated working practices and inflated wages. These inefficiencies, able to emerge unnoticed during the years of economic success, increased the need for industrial restructuring and the LMBO concept began to gain recognition.

Between 1992 and 1993 LMBO activity increased slightly to about 51 deals, a significant increase in comparison to the 27 deals in 1991. The majority of LMBOs continued to be divestments from German parent companies at 37,5 percent and foreign parents at 20 percent followed by LMBOs from family-owned companies at 35 percent . The impact of recession had finally pressured domestic and foreign companies to consider restructuring their diverse activities, providing the potential for further LMBOs (Wright, Robbie, March 1995).

While small- to medium-sized companies in Germany facing succession problems have always been regarded as the strongest source for management LMBOs, owners' attitudes toward selling in general as well as to selling to management presented the greatest barrier for LMBO transactions in the past. However, difficult economic conditions changed especially elderly company owner's attitudes and encouraged them to sell rather than struggle through recession (Initiative Europe, 1995).

In 1994 against the background of a slight economic recovery, there was a major increase in deal volume to 59 transactions with a total transaction volume of £733m. According to Wright and Robbie (Summer 1995), this highly secretive market seemed have to opened up in terms of the readiness to report deals and the willingness of private and corporate vendors to consider LMBOs as viable alternative to trade sales. In 1995 the number of transactions increased to 74 reaching a market value of £540m which signified a slight decline from 1994. In 1996, although the number of transactions fell to 62 transactions the overall market value exceeded all previous years with a transaction value of £1.1 bn (Initiative Europe, 1997).

2.2 Data about German LMBOs

Availability of data about German LMBOs is problematic due to the German tendency towards secrecy. Schmid (1994) states in this context that the only precise data about the intensity of LMBO activity exist about LMBOs in the 'Neue Bundesländer', the former East German states, due to the fact that the German 'Treuhandsellschaft', the national trust company, kept comprehensive records on their completed transactions. Accurate information on LMBO activity in the 'Alte Bundesländer', the former West German states, is very hard to obtain. This is particularly due to the lack of an institution like the CMBOR in the UK and the fact that LMBO transactions in Germany are arranged and completed with utmost discretion. Especially owners of small- to medium-sized companies prefer to keep the transaction silent in order to avoid the impression that their succession problems were insurmountable or that they 'cashed in' the family business. The following data about the LMBO activity in Germany by the CMBOR is mainly based on information given by German banks or venture capital firms involved in LMBOs.

2.3 Main sources for German LMBOs

Like in the UK, there are five main sources for German LMBOs. From 1980 to 1994 the distribution of LMBO sources was as follows:

Table 7: Distribution of German LMBO sources

	1980-1990	1991	1992	1993	1994	1995	1996
(in percent)							
Receivership	n.a.	3.8	2.3	7.5	5.6	1.6	2.1
Divestment domestic	19.0	46.2	39.5	37.5	33.3	58.1	42.6
Divestment foreign	38.1	38.4	23.2	20.0	18.6	21.0	21.3
Family-owned	38.0	11.5	32.6	35.0	40.7	16.1	34.0
Other	4.9	0.0	2.3	0.0	1.9	3.2	0.0
Total	100	100	100	100	100	100	100
Sample size	121	26	43	40	54	74	62

(CMBOR/BZW Private Equity/Deloitte Touche Corporate Finance 1997/Initiative Europe, 1997)

As seen in the above table from the beginning of real LMBO activity in the late 1980s until 1994, divestment of subsidiaries from domestic and foreign groups were the most important LMBO source, ranging from 84 percent of all transactions in 1991 to 52 percent in 1994. Divestments of German and non-German parent companies peaked as sources of LMBO activity with 46 and 38 percent respectively in 1991. This development was mainly due to the impact of German reunification. Many LMBOs occurred in the former German Democratic Republic to save the companies. From 1991 on, LMBOs from divestment from non-German parents remained stable at approximately 20 percent, whereas divestments from German parents declined from 40 percent in 1992 to 33 percent in 1994. In 1995 and 1996, divestments continue to be an important source of deals, reflecting the consequences of industrial restructuring. Especially domestic divestments were a particularly strong source in 1995, representing 58 percent of all transactions, although this figure declined in 1996 to 43 percent.

In the beginning of the LMBO market most of these businesses have been sold by medium-sized groups rather than the German corporations - however spin-offs of businesses of well-known German corporations like AEG, a daughter of Daimler-Benz, sold nine divisions to buyout teams or Mannesmann divested its printer manufacturing subsidiary to an LMBO team (Initiative Europe, 1997).

In the late 1980s family-owned companies were the most frequent LMBO sources reaching 38 percent. In the beginning of the 1990s this figure declined slightly, reaching its lowest point at 11 percent in 1991. From 1991 on family-owned companies regained importance as an LMBO source peaking at 40 percent of all LMBO transactions in 1994 from 11 percent in 1991.

This development is mainly due to succession problems in German small- and medium-sized companies and is likely to gain even more importance by the end of the decade. Especially economic difficulties have encouraged some elderly owner-managers to sell rather than to have to struggle through recession. Consequently, the effect of this development can be seen in the statistics which reveal that with the exception of 1995 when the percentage of deals from this source dropped to 16 percent, LMBOs from family-owned companies accounted for more than a third of all transactions in 1996 (Initiative Europe, 1997).

Receivership deals, at 3.8 percent of all transactions, didn't play an important role at the end of the 1980s and increased little in the course of the 1990s due to the recessionary conditions. The receivership source peaked in 1993 at 7,5 percent and declined steadily reaching 2.1 percent of all transactions in 1996.

2.4 Volume of the German LMBO market

Table 8: Volume of the German LMBO market

Year	Number	Value (in million pounds)
1988	36	N/A.
1989	25	N/A.
1990	36	292
1991	27	224
1992	51	322
1993	44	397
1994	59	733
1995	74	540
1996	62	1.148

(Source: Initiative Europe, Buyout Review 1995-1997)

As seen in the above table, LMBO activity in the late 1980s was quite moderate, the annual rate of transactions ranged between 25 and 36 between 1988 and 1990 and the transaction value amounted to DM 292m in 1990. (Figures for transaction value are not available for 1988 and 1989.) In their article of 1992, Tanner, Gräper and Wright discuss the development of the German LMBO market and conclude that, due to the impact of German reunification in 1989, Germany became the largest buyout market in Continental Europe with 36 transactions in 1990.

However, this dramatic increase in deal volume was due entirely to the restructuring taking place in the former German Democratic Republic (GDR). In the western part of Germany, the slow but steady growth of MBO transactions has continued. Lack of information remains a problem in monitoring market developments, so the estimated numbers of transactions is likely to be recorded under value.

Wright and Robbie (1995/96) conclude that 1994 saw record levels in both the volume and value of LMBOs in the former West German states. By increasing the number of deals completed by a third to 59 in 1994, Germany became the second largest LMBO market in continental Europe with an LMBO market value of £733m, twice the level of 1993 (Wright, Robbie, 1995/96). In 1995 the market has developed steadily and 74 deals were recorded with an estimated value of £540 m. In 1996 the number of transactions declined slightly to 62 transactions, however the estimated market value reached its peak breaking for the first time the £1 bn barrier and placing Germany on number one in the Continental LMBO market above France (Initiative Europe, 1997).

In this context it is worthwhile examining the development of the average LMBO transaction volume which is closely related to the growth of the overall LMBO market value and which has developed as follows. According to statistics of the Initiative Europe Buyout Review (1995) more than 50 percent of all transactions were below £5m from 1980 to 1990, only 30 percent fell below this range in 1994 and 37 percent were below this range in 1996. LMBOs ranging between £5m and £25m accounted for 30 percent of all transactions between 1980 and 1990, increased to 55 percent in 1994 and declined to 37 percent in 1997. LMBOs with transactions volumes over £25m accounted for 18 percent between 1980 and 1990, declined to 15 percent in 1994 and increased again to 26 percent in 1996 (Initiative Europe, 1997).

3. Financial investors in German LMBOs

3.1 The role and importance of venture capital firms

German venture capital firms were introduced in 1987 with the two-fold purpose of providing venture capital and a savings vehicle for small savers. Provided that 70 percent of their stock is offered to the general public, these firms are tax exempt. In Germany, venture capital firms join together in the 'German Venture Capital Association e.V. (BVK)' which distinguishes the following major groups:

- Universal venture capital firms, which constitute the biggest part of the existing venture capital firms and preferably invest in already settled and profitable small- to medium-sized companies,
- Venture capital firms which focus on new companies, the second largest group in the BVK,
- State-supported venture capital firms, and
- Specialised venture capital firms as defined by the law for venture capital firms (UBGG).

According to the statistics of the BVK (1997) the total volume of ‘funds under management’ amounted to DM 9.8bn in Germany in 1996. According to the statistics of the BVK, the various sources of funds for venture capital firms are as follows:

Table 9: Sources of German venture capital funds

Banks	59	percent
Pension funds	10	percent
Industry	9	percent
Insurance	8	percent
State	7	percent
Private	4	percent
Other	3	percent

(Source: BVK yearbook, 1997)

17 percent in terms of value and 7 percent in terms of number of the total investment portfolio of venture capital firms in Germany are in LMBO/LMBI transactions. This is in strong contrast to the figures in the UK, where 71 percent of the value and 41 percent of the investments involve LMBOs (European Private Equity Survey, 1997).

Detailed statistics from the BVK (1997) show the following distribution of investments of venture capital in 1996:

Table 10: Distribution of investments of venture capital in Germany

	In value	
Expansion	60	percent
MBO/MBI	17	percent
Start up financing	7	percent
Bridge financing	5	percent
Turnaround financing	3	percent
Seed financing	2	percent
Other	6	percent
Total	100	percent

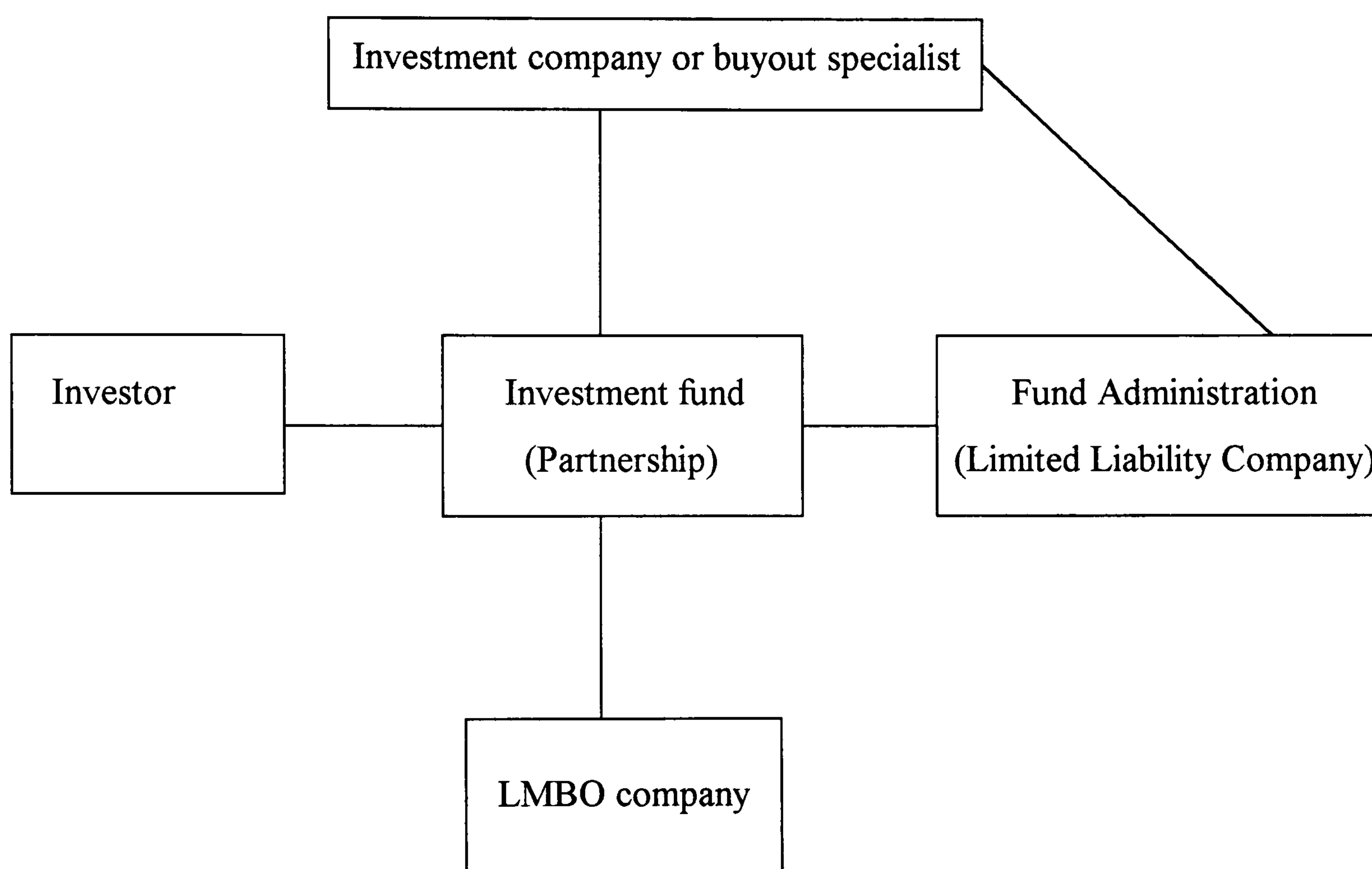
(Source: BVK yearbook, 1997)

According to research about the attitude of venture capital firms towards LMBO transactions conducted by Luippold (1991), 85.7 percent of the companies questioned confirmed their support of LMBOs ‘without restriction’ and 14.3 percent only ‘under certain circumstances’ in 1990. Whereas all venture capital firms could imagine participating in a buyout transaction with equity, 79 percent of the sample companies would be prepared to undertake a consulting role and 36 percent would feel competent to lead the transaction as a sponsor. The venture capital firms in the sample questioned by Luippold provided equity and mezzanine financing, but no debt financing.

LMBO experts (Luippold) expect a further expansion of the German venture capital market in the coming years and, therefore, for finance transactions such as LMBOs. According to Leopold (1989), the volume of equity investments will increase several times over in the next decade and therefore venture capital investment will become one of the most important sectors for financial services and innovations in Germany.

3.2 The role and importance of venture capital funds

LMBO funds are equity funds especially created by institutional equity providers to finance LMBOs and are funded by industrial investors or wealthy private individuals. According to Schwenkedel (1991) the structure of an LMBO fund in Germany is usually as follows:



Schmid (1994) writes in this context that German investment funds are usually in the form of a limited partnership (GmbH & Co. KG) in which investors participate as partners with limited liability and the fund administrator's participate as fully liable partners of a limited liability company. According to Schmid, the investments per partner are usually limited to 10 to 20 percent of the fund volume and the fund generally matures in 7 to 10 years.

The following are the investment funds established with focus on the German LMBO market with the highest investment volume:

Table 11: Investment funds in Germany with the highest investment volume until 1991

1992	BC Partners	Baring European Capital Partners	ECU 135 m
1992	CWB Cap. Partners	CWB Capital Partners I	£167m
1992	Schroder Ventures	Schroder German Buyouts 1992	DM 230m
1992	Thomas JC Matzen	Thomas JC Matzen	DM 160m
1993	Halder Holdings	Halder Investments III	DM 165m
1994	BC Partners	Baring Capital Partners	ECU 450m
1994	3i	3i Europe Investment Partners	ECU 330m
1994	Advent International	Global Private Equity II	\$312m
1994	Apax Partners	Apax Europe II	ECU 300m
1996	Quadriga Capital Management	Private Equity Fund	DM 166m
1996	German Equity Partners		DM 160m

(Source: Initiative Europe, Buyout Review 1995-1996, Private Equity Monitor 1996)

According to the above list of investment funds, a large amount of capital was accumulated in Germany for LMBO investments in the 1990s, supplied mainly by international equity providers and LMBO specialists. LMBO experts argue, however, that the high volume of funds and the capital available might put pressure on venture capitalists to invest in arising LMBO opportunities (Private Equity Monitor, September 1996). Resulting problems like overpricing could well lead to a slow down of the rate in which deals are completed and, as a consequence, European markets could risk remaining replete with established investment funds.

3.3 The role and importance of banks

In Germany, banks have had a close relationship with industry for a long time. This tradition of industrial banking emerged in the nineteenth century and has influenced both the structure of special credit institutions set up in the twentieth century and the nature of their relationship with industry.

The main feature of this relationship, which contrasts sharply with UK commercial banks, is that German banks are not only providers of credit but may also be shareholders in their own right. Furthermore, in splitting external financing into debt and equity, German firms seem to rely considerably more on debt and less on equity finance than firms in other countries, a fact which diminishes the role of the German stock market. As to debt financing, German enterprises are relatively dependent on bank finance, 48 percent of all debt was made with credit institutions in 1992 compared to firms in the UK where debt to bank institutions amounted to only 32 percent (OECD Germany, 1995).

Concerning the attitude of German banks towards LMBO transactions, the majority of German banks have been reluctant in the past to finance an LMBO transaction. In his study, Luippold (1991) researched, among other questions, the attitude of German banks towards LMBOs and either witnessed a noticeable lack of interest or obtained no response to the questionnaire at all - a fact which could be justified by the lack of activity and therefore experience by the respective banks in this sector. However, Luippold (1991) also found that the few institutions, who responded as being active in the LMBO market, confirmed that competition on the market was increasing and that they desired increased market share in this upcoming market. Those banks showed increasing willingness to provide LMBO financing on the basis of future cash-flow rather than on tangible assets.

The growing interest of banks in Germany to participate in LMBO transactions has to be seen in the context of an intensely competitive environment in which the German banking industry will have to operate and where banks feel the need to look for new business opportunities. Furthermore, initial participation in LMBO transactions will offer banks in Germany the following business opportunities over the course of the LMBO life cycle:

- Establishment of a new customer relationships due to new, innovative finance instruments with relatively high interest margins
- Private asset management opportunities with respect to the vendor of the company
- Participation in the exit of the company through flotation

According to Luippold’s research, German banks are becoming more and more interested in providing mezzanine as well as equity financing, either themselves or through their subsidiaries. Some institutions indicated that they were even willing to provide secured, unsecured and equity financing. However in the majority of the cases, debt providers are not equity providers. This is due to section 32a Limited Liability Companies Act which states that shareholder loans granted by the shareholders in a situation where prudent businessmen would have given additional equity, this loan may become automatically subordinated and substitute equity. Therefore, German banks are reluctant to provide debt and equity, as they are to transfer this task to one of their subsidiaries which functions as an equity investment firm. With respect to the major participants in German LMBO transactions, Braun (1989) listed the following banks as the major participants in German LMBOs:

Table 12: Most active debt providers for LMBO’s in Germany

Bayerische Hypotheken- und Wechselbank
Westdeutsche Landesbank
Dresdner Bank
BHF Bank
Citibank
Commerzbank

(Source: Braun, 1989)

In summary, according to Luippold (1991), the following factors will force German banks to participate more and more in leveraged financed transactions, especially in the form of LMBOs:

- Experienced foreign financial institutions aggressively forcing their way into the German market
- Growing competition due to innovation, globalisation and deregulation
- Increasing pressure on the margins in traditional credit transactions

4. After the LMBO

4.1 Exit possibilities

Exiting is one of the key issues for investors in order to realise their investment and their capital gains. In general, this implies that markets where company shares can be sold have to be well-organised, fully functioning and highly receptive. In Germany, exiting is one of the key problems for investors due to the relatively inactive stock market in comparison to the US and the UK²². The following will discuss the existing exit channels in Germany as well as their advantages and disadvantages.

4.1.1 Going public

In contrast to the UK, where flotation of LMBO companies on the stock exchange was the most important exit route, the flotation of German LMBO companies on German stock exchanges have been far less common. In general, the level of activity on German stock markets varied considerably from that in the UK, especially the number of new listings for individual companies²³.

In Germany, going public, or introducing a company to the stock exchange, has been restricted due to the severe admission criteria the respective companies have to fulfill²⁴. Strict admission criteria and the reluctance of banks to sponsor the going public process and to take responsibility for the 'Prospekthaftung', the liability for information given in the sales memorandum, made it difficult for small- to medium-sized companies to get a full stock exchange listing. Additionally, the high costs of the procedure, the small emission volume and the time it took to implement all prevented many small- to medium-sized companies from getting an official stock market listing (Luippold, 1992).

²² In comparison to 664 listed companies in Germany in 1993, there were 1,865 in the UK and 7,313 in the US.

²³ In 1994, the number of new company listings in the UK amounted to 256 whereas in Germany they amounted to only 3.

²⁴ For details on admission criteria see hereto section A, V, 1. going public

Taking all the above mentioned factors into consideration, it is not astonishing, that going public - in sharp contrast to the UK - didn't play a significant role as an exit possibility for German LMBOs. Only 7 percent of all exits in 1996 went on the stock market. However, the introduction of the 'Geregelter Markt' in 1987 and the 'Neue Markt' in 1997 was supposed to encourage the flotation of small- to medium-sized companies and act as a catalyst in Germany's inactive equity culture.

4.1.2 Trade sales

Another alternative to exit an LMBO investment is the sale of the company to a third party. Potentially interested parties could be financial or industrial investors interested in acquiring the technological know-how of the LMBO company or adding the products of the target company to their existing product range. Industrial investors are the most interesting potential buyers for LMBO investors in that they are willing to pay 'strategic' prices (above market price) based on the future benefits of the synergy resulting from the merger.

Divestment through sale to an investor may, however, be rejected by the LMBO managers who would lose their newly acquired independence and freedom of decision. Therefore the decision to sell the company to an industrial investor might depend upon the attitude of the existing management towards the potential buyer (Karsunky, 1992). Trade sales were the second common alternative in 1996 with 21 percent of all LMBOs exiting this way. This confirms the assumption that the LMBO management team had been able to co-operate with the new shareholders or that the purchase price meant significantly attractive rates of return on the initial investment.

4.1.3 Buy-back

Another alternative for exiting an LMBO in Germany is when former owners buy the companies back or acquire a majority stake from the existing management. Buy-backs represented 65 percent of all exits in 1996. For management to acquire a majority stake through the ‘the buy-back option’, the appropriate evaluation modalities and regulations are usually incorporated in the initial LMBO purchase contract. The future purchase price is already agreed among the parties, so management also has the option to look for a second financial partner willing to participate in the transaction (Karsunky, 1992). As seen in the 1996 exit statistics, buy-backs were a very common exit alternative, a total of 26 percent of all exits were buy-backs.

4.1.4 MBO/MBI

According to BVK statistics, the sale of a company to other financial investors is the least common exit alternative for investors. In 1996 this route constituted only 5 percent of all registered exits. Statistics from the BVK (1997) on exit alternatives in Germany revealed the following:

Table 13: Exits of German Buyouts in 1996

Exit	DM	%	number	%
(in million marks)				
Buy back	301	57	163	65
Trade sales	162	30	52	21
MBO/MBI	17	3	14	5
Going public	47	9	17	7
Other	3	1	6	2
Sum	530	100	252	100

(Source: BVK yearbook, 1997)

4.2. Main impacts of LMBOs on the German economy

4.2.1 Remarriage of ownership and control

With respect to the efficiency and competitiveness of LMBOs, Wright and Coyne (1985) deemed the relationship between ownership and control to be one of the most important debates in corporate governance theory. They claim that the remarriage of ownership and control through management’s equity holding in a company, investments which perhaps constitute a substantial portion of managers’ personal wealth, will motivate them to effectively manage and monitor the company’s performance. In her study of 1991, Nemec also emphasised the conflict resulting from the separation of ownership and control as well as the suboptimal decisions made out of this conflict. Nemec underlines in her study (1991) the impact of the remarriage of ownership and control through an LMBO in overcoming this conflict.

4.2.2 The German “Mittelstand”

4.2.2.1 The size of the German “Mittelstand”

German small- to medium-sized companies are generally known as ‘Mittelstand’ and accounted for 99,9 percent of all companies in the former West German states in 1994. They have always been regarded as one of the strongest potential LMBO sources . To emphasise this future potential, the following statistics from 1994 (Statistische Bundesamt) rank German companies according to sales volume:

Sales (in deutschmark)	Number of companies (in 000)	
%		
25.000 - 1 Million	2,140	81.2
1 Million - 10 Million	430	16.3
10 Million - 50 Million	50	1.9
<u>50 Million - 250 Million</u>	<u>11</u>	<u>0.5</u>
= Mittelstand		
over 250 Million	2	0.1
Total	2,633	

From the 2,632,000 companies in Germany

approx. 2,223,000 or 85 percent are partnerships

approx. 360,000 or 14 percent are limited liability companies

approx. 2,000 or 0.1 percent are joint-stock companies or companies limited
by shares, but having one or more general partners

(Source: Statistisches Bundesamt, 1994)

4.2.2.2 The role of the German 'Mittelstand'

According to Albach (1983), the German 'Mittelstand' represents the market economy. In his view the importance of small- to medium-sized companies for a market economy is based on the following:

- Small- to medium-sized companies provide a wide range of goods and services, therefore they are able to react quickly and flexibly to consumer driven changes.
- They are in quantitative and qualitative respects important employers. They offer qualified jobs in an environment which is known for accountability and team work.
- They are the driving force in the modernisation of the economy, as technical innovations can be transformed into marketable products in a very practical, quick and cost-efficient way.
- They are very often a spring board for entrepreneurial talent and act as catalyst for established market leaders of the respective branches.

4.2.2.3 The importance of LMBOs for the German "Mittelstand"

The above statistics show that the Mittelstand is the backbone of German industry, consisting of a large number of small- to medium-sized family-owned companies which are often still run by their founders.

Due to the fact that a lot of these owner/managers will have to retire from their businesses over the coming years ²⁵ and no successor is available within the family, LMBOs have played and will play a vital role in finding suitable solutions for succession problems in order to keep the German “Mittelstand” alive.

5. Perspectives for the German LMBO market

In summary, the following key factors will influence the future development of the German LMBO-market:

- The succession problems in the German Mittelstand will gain importance by the end of the decade. According to research by the Institut für Mittelstandsforschung, 420,000 small- to medium-sized companies will have succession problems by the end of this decade.
- Divestment from national and international parent groups are expected to continue playing a central role in the LMBO market due to economic pressures and the continuing need for restructuring.
- The still underdeveloped equity culture in Germany reflected in the low number of IPOs and trading levels will slowly change.
- The development of the markets in Germany is still insufficient, but the introduction of the ‘Neue Markt’ in 1997 and the continuous development of the existing 8 regional stock exchanges will encourage market activity.
- Buyout funds have an ample supply of equity for LMBO investments. Several financial investors have provided some significant fund raising for LMBO activities in the 1990s

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²⁵ According to the statistics of the Institut für Mittelstandsforschung in Bonn, 420,000 small- to medium-sized companies will have succession problems by the year 2000.

²⁶ For further details on investment funds see section C, II, 3.2 The role and importance of investment funds.

- Banks have developed more flexibility concerning LMBO financing due to market pressure and the ongoing consolidation process in the banking industry. Several banks have already established specialist buyout or acquisition finance departments in order to provide the very specialised skill required to structure and monitor LMBOs and to ensure rapid and high quality service (Wright, Robbie, Chiplin, Spring 1997).
- The changes in the current tax law, proposed by the German government to finance the intended corporate tax reform by increasing the capital gains tax may lead to a wave of LMBO transactions before tax reform is implemented in 1999 at the latest.

Due to the above factors, LMBO experts assume there will be an increase in German LMBO activity in the coming years. The changing macroeconomic environment will also encourage alternative methods of financing, restructuring and divestment, forcing companies to reorganise their business activities. As a result, venture capital firms are and will receive an unprecedented number of enquiries about possible LMBOs from small- to medium-sized family businesses and from leading corporations. However, venture capitalists like Andrew Richards of 3i (1996) point out that more details about LMBO transactions and their outcomes must be accessible in order to establish 'role models' for industry and executives alike. If this were achieved the German market could see 300 to 400 deals a year (Richards, 1996).

III. Microeconomic LMBO factors in the UK

1. Form and structure of UK companies

1.1 The legal form of UK companies

Due to the significant differences between UK and Continental law with respect to the structuring of Leveraged Management Buyout transactions, several aspects of UK and German corporate law are worth examining in order to fully understand the difference between LMBO activity in the UK and Germany.

In the UK one has to distinguish between the incorporated and the unincorporated firm²⁷. An incorporated firm means that the firm legally becomes a ‘person’ or entity, separate from its owners and in possession of certain legal rights and duties a person would have.

An unincorporated firm is viewed by law as a group of owners rather than as a separate legal entity and such a firm is known as a sole trader or a partnership. To establish a business as a sole tradership or a partnership requires no legal action. The guidelines for resolving internal conflict between partners are provided by the Partnership Act of 1890 (Higson, 1995).

Concerning corporate forms, there are two basic systems of legal classification of companies under the Companies Act, neither of which is directly concerned with size, but both have some bearing on the raising of capital. These are by reference to (1) the liability of members and (2) the public/private dichotomy. As to (1) registered companies may be:

- Companies limited by shares (introduced in 1855)
- Companies limited by guarantee (introduced in 1862)
- Unlimited companies

²⁷ An incorporated firm is called a company in the UK and a corporation in the US although sometimes the US word is used in the UK for a particularly large company.

In the first case, the most common type in practice, each member must contribute to the company's assets the amount unpaid on his shares. In the second case, the partners are personally liable for the amount which they contributed in the event of insolvency. In the final case, each partner's liability is unlimited if the company becomes insolvent, even though the company has a legal personality.

A large firm will almost certainly be incorporated as a limited liability company and is likely to be a public company whose shares are listed on the stock exchange.

A public company is defined as a company limited by shares or limited by guarantee whose memorandum states that it is to be a public company and which has complied with the provisions for registration with a minimum capital of at least £50.000

In the UK, the most common form is the company limited by shares. This form will be chosen by big corporations and by small- and medium-sized companies. Once again, one has to distinguish between 2 forms:

- Public limited company (plc) where the shareholders are public
- Private limited company (Ltd.) where there are only a few shareholders

The guidelines for companies are provided by the Companies Act of 1985 which consolidates the Companies Acts of 1948, 1967, 1976, 1980 and 1981. Concerning the distribution of company forms according to the public/private dichotomy, the vast majority of companies are private, although only perhaps half of the number registered are actually trading. The largest companies are usually also quoted. These are public companies which have decided to seek a wider market for their shares by having them quoted on the stock market.

The distribution of companies in the UK are as follows:

Table 14: Distribution of companies in the UK

	1994	1979
Private	1,075,483	710,602
Public	13,746	16,015
Public quoted (UK, all markets)	2,264	2,431

(Source: Higson, 1995)

Referring to the above statistic it is evident that private companies in the UK are the most frequent company form, the numbers have been increasing and continue to increase since 1979, whereas the number of public companies is declining. This may be due to the more stringent legislation contained in the Companies Act 1985 which lessens the advantage of being a public company for UK firms.

1.2 The equity structure of UK companies

With respect to different LMBO take-over models ²⁸ it is of vital importance to examine the existing potential of ‘hidden reserves’²⁹ in the desired target company. This allows companies to use this step-up potential of assets and increase their net cash-flow level due to a higher depreciation volume. UK companies usually adopted the historic cost convention which meant that the assets and liabilities of the company are generally stated at original cost subject to depreciation or provisions for diminution in value (BDO, 1991). Karsunky (1992) points out that the Companies Act of 1981 incorporated the 4th European Union guidelines allowing UK companies to use the ‘market or current cost accounting’ methods for the evaluation of certain assets instead of the existing ‘historical cost accounting method’. In that case, by law, any surplus on a revaluation, calculated after provision for depreciation and diminution in value, must be transferred to a separate non-distributable reserve account shown on the balance sheet.

²⁸ More details about UK take-over models are described in section D, I, 2.4 asset deal

²⁹ ‘Hidden reserves’ is the financial term for the difference between current cost and historical cost value of assets.

According to Köhler and Rotter (1994) the Companies Act 1985 allows the following positions of the balance sheet to be revalued according to ‘current costs’ or ‘market value’:

Table 15: Evaluation possibilities of assets in UK companies

Balance position	Evaluation
Immaterial goods	Current costs
Tangible assets	Current costs or market value
Investments	Market value
Securities	Current costs
Inventories	Current costs

(Köhler/Rotter, International Accounting Rules, 1994)

Due to the fact that the difference between historical value and current costs or market value is capitalised in the position ‘revaluation reserve’ and that this amount is restricted for dividend distribution, the equity of the company increases through each revaluation. Based on the effects of the above revaluation method, UK LMBO target companies cannot be compared to German companies, as, in most cases, their ‘hidden reserves’ are already capitalised in the respective equity position which leads to a considerably higher equity ratio than that of German companies. According to the OECD report of 1996 the equity structure of UK companies in 1992 was relatively strong with an equity ratio of approximately 49 percent in comparison to that of German companies at 18 percent³⁰.

1.3 The liability structure of UK companies

The statistics available on UK company financing (OECD, Germany 1995) support the conclusion that financing is predominantly provided by both internal funding and external funding through debt and stock issue³¹.

³⁰ According to the Deutsche Bundesbank Monatsbericht 1995, the equity ratio of German companies remained fairly constant, ranging only between 17,8% and 18% from 1991 to 1994.

³¹ According to the OECD report of 1995, of the total financing volume of German companies 60% were made by internal financing, 25% by debt financing and 15% by equity financing.

Due to the fact that external bank financing is relatively unimportant for companies in the UK, one has to conclude that securities exchange serves as the primary cash providers for British companies. The following table confirms this assumption by revealing that 36 percent of total company financing is done through securities.

Table 16: Financing sources of British non-financial companies:

- Securities	36	percent
- Bank loans	21	percent
- Other loans	18	percent
- Other liabilities	21	percent

(Source: Karsunky, 1992)

This statistics confirm further the assumption that bank finance is not of particularly high importance to UK companies due to the fact that they provide only 21 percent of the total financing. The influence of banks on LMBO financing is therefore somewhat weaker than in other European countries, especially Germany. However, just because bank-lending in the UK is virtually insignificant, it would be wrong to assume that banks have a subordinated role in the area of LMBO financing.

According to Wright, Robbie and Chiplin (1997) specialist departments for leveraged finance transactions were established in the UK because this type of lending was perceived by banks to be different from usual corporate financing and its particular skills and requirements. Banks financing LMBO transactions have often attempted to provide other services as well, such as overdrafts, forex, M & A, etc. and, according to the banks interviewed in the survey, the ability to provide a full range of services was important in order to be completely informed about everything which may have an impact on the lending.

2. Business activity of UK LMBO companies

The following is an overview of the business activity of LMBO target companies from 1990 ³² to 1996 in the UK. Only the main industries are listed here, which account for approximately 70 percent of all buyout transactions in the UK.

Table 17: Business activity of UK LMBO companies from 1990-1996

Business Activity (in %)		1990	1991	1992	1993	1994	1996
1.	Business services, leasing	21.4	20.3	25.3	27.9	23.3	26.1
2.	Mechanical & instrument engineering	8.8	5.8	6.2	7.2	5.0	10.4
3.	Wholesale distribution	8.0	11.8	7.5	9.0	7.8	9.7
4.	Electric. engineering & office machines	7.6	10.0	7.8	6.7	10.0	7.3
5.	Other manufacturing	4.1	2.9	3.8	4.4	3.8	7.0
6.	Paper, printing and publishing	6.8	6.3	8.0	5.7	7.0	6.0
7.	Retail, distribution and repair	6.6	5.1	6.0	3.6	4.5	3.7
8.	Banking, Insurance and Finance	4.7	6.5	4.2	4.1	2.5	3.9
9.	Other	32.0	31.3	31.2	31.4	36.1	25.9
Total		100.0	100.0	100.0	100.0	100.0	100.0
Total transactions		488	448	451	387	400	402

(Source: Data from CMBOR/BZW Private Equity/Deloitte Touche & Touche Corporate Finance, Spring 1997)

As seen in table 17, LMBOs are widely spread across industrial sectors. From 1990 to 1996 LMBOs are preferably found in service sectors like business services (transportation) increasing from 21.4 to 26.1 percent, mechanical and instrumental engineering where the frequency of LMBOs increased from 8.8 to 10.4 percent followed by wholesale distribution increasing from 8.0 to 9.7 percent in 1996.

³² LMBO activity reached its peak in number of transactions in the UK in 1990 and in Germany in 1994.

Other areas where LMBOs tend to occur between the period of 1990 and 1996 were electrical engineering and office machines declining slightly from 7.6 to 7.3 percent and paper, printing and publishing where the share of LMBO companies declined from 6.8 to 6.0 percent. Additional areas worthy of note are retail, distributions and repair with a share of 3.7 percent of all LMBO transactions.

It is interesting to observe that LMBOs not only occurred in manufacturing industries, which banks prefer due to their stable cash-flows and availability of tangible assets, but also in service sectors and the manufacture of electronic equipment, profitable market niches with future growth potential.

The evaluation of these statistics support the assumption that the growing trend led away from asset-based lending where banks preferred companies in manufacturing industries and towards cash-flow oriented lending where also service industries with strong cash-flow could be considered valuable LMBO targets.

3. Ownership, control and decision-making of banks in UK firms

In contrast to the 'German model' of corporate governance, the Anglo-American model is structured such that individual shareholders have little direct influence on management and that dissatisfied shareholders can only express their dissatisfaction by selling their equity holdings in a firm. The resulting downward pressure on share prices serves as an indirect disciplining device for management because it increases the risk of hostile take-overs usually resulting in a change of management. As a result of this mechanism, the stock market in the UK is seen to be much more central to the Anglo-American model than the German model, where companies rely greatly on continuous participation by banks, business partners and employees in company management practices, creating greater potential for conflict of interest.

4. Reasons to sell and acquire the company

4.1 Reasons for owners to sell

In a survey of 357 LMBOs in the 1980s conducted by Bannock in co-operation with 3i (1990), respondents were asked to give their assessment of the motives in the decision to sell the business. Almost 31 percent ranked ‘non-core activity’ as the primary motive, 21 percent ‘the need to raise cash’ and 17 percent were ‘unable/unwilling to continue the business’. This evidence is also confirmed by the most common sources for LMBO activity, divestment from national and international groups or succession problems in privately-owned companies.

Table 18: Reasons for owners to sell

Motives	%	Ranking
Non core activity	31 percent	1
To raise cash	21 percent	2
Unable to continue	17 percent	3
Insufficient return on capital	13 percent	4
Need of capital	11 percent	5
Business would otherwise fail	4 percent	6
Too small for top management	1 percent	7
Unwanted part of an acquisition	1 percent	8

(Source: Bannock, 1990)

4.2 Reasons for owners to sell to the management

In addition to the questions why owners decided to sell their businesses, the respondents were also asked why they decided to sell to management rather than some external buyer. As shown in the following table, the motives were also quite varied. The majority of respondents ranked MBOs as the ‘least time consuming alternative’ followed by the ‘most attractive sales price’ and the ‘least disruption to the company’. This signifies that company owners had more rational motives for selling to management and were less guided by emotional reasons like the desire to reward the management for their loyalty to the company.

Table 19: Reasons for vendors selling to the management

Motives	%	Priority
Least time consuming	25.0 percent	1
Most attractive price	21.0 percent	2
Least disruption to the company	20.8 percent	3
No other likely buyers	14.2 percent	4
Desire to reward the management	7.9 percent	5
Other	7.1 percent	6
No response	3.8 percent	7

(Source: Bannock, 1990)

4.3 Reasons for managers to acquire

In the above-mentioned survey, Bannock (1990) evaluated among other things why managers would consider an LMBO. The following table will reveal some of the most important findings:

Table 20: Motives for acquiring the business

	Unimportant	Important	Very important	No response	Total
Freedom to manage in own way	1.4	23.5	73.1	2.0	100
Opportunity to create wealth	10.6	53.5	33.6	2.2	100
Freedom from bureaucracy	29.4	36.1	30.5	3.9	100
Loyalty to firm/employees	13.7	50.7	32.8	2.8	100

(Source: Bannock, 1990)

As can be seen from the above table, the prime motivation for management to acquire a company was the ‘freedom to manage in their own way’. ‘Opportunity to create wealth’ came next, followed by their ‘loyalty to the firm and its employees’. Freedom from bureaucracy was also important and ranked third at 36 percent. To sum up, all the responses from management, the outstanding motive for acquiring the business they work in seemed the wish to have more freedom in managing the company.

IV. Microeconomic LMBO factors in Germany

1. Form and structure of German companies

1.1 The legal form of German companies

In Germany one has to distinguish between the 2 company forms sole traderships or partnerships and companies/corporations:

- I. The most common partnerships in Germany are general partnerships or limited partnerships.**
- II. The most common forms of incorporated companies under German law are:**
 - A. ‘Aktiengesellschaft (AG)’ a joint-stock company governed by the Joint-stock Company Act AG (AktG)**
 - B. ‘Gesellschaft mit beschränkter Haftung (GmbH)’, a limited liability company governed by the Limited Liability Companies Act (GmbHG)**

According to the following turnover statistics of German companies in 1992 (Statistisches Bundesamt), joint-stock companies accounted for only about 20 percent of turnover in 1992 and of the total 2,000 joint stock companies at the end of 1992 only 664 were listed. The more than 300,000 corporations, mostly all with limited liability, accounted for more than 30 per cent of total turnover with nominal capital stock a third larger than that of the joint-stock companies.

Some of the most well-known German enterprises are organised as limited liability companies like Bosch and IBM Germany. With the inclusion of sole traderships, partnerships and enterprises with other legal forms, it is clear that joint-stock companies in general and listed firms in particular are much less prevalent in Germany than in Anglo-American economies.

According to Mr. Fahrholz of Dresdner Bank (1991), company stakes are mainly in the hands of private persons and therefore take-over transactions are much more complex and difficult than in the UK or in the US where many companies are publicly listed³³.

Table 21: Turnover tax statistics for 1992

Company form (Legal status)	Number of companies	Turnover (million DM)	%
Sole traderships	1,926,980	950,744	15.02 percent
Partnerships	297,480	1,823,552	28.82 percent
Joint-stock companies	2,164	1,229,132	19.42 percent
Limited liability comp.	359,358	1,981,331	31.31 percent
Other	45,828	343,658	5.43 percent
Total	2,631,810	6,328,444	100.0 percent

(Source: Statistisches Bundesamt, 1994)

1.2 The equity structure of German companies

In evaluating the different LMBO take-over techniques³⁴ for German LMBOs, it is vital for the success of the transactions that buyers examine the existing potential of any 'hidden reserves' in the underlying assets of the target company. In this context it is important to emphasise that, in contrast to UK commercial law, German commercial law has not been adopted to the '4th European Union Guidelines' concerning the revaluation of assets so that German companies have to practice the conservative method of historical cost accounting. Although this accounting method results in a rather low equity ratio it allows for the accumulation of 'hidden reserves' which might serve as an asset step-up potential in future buyout transactions.

³³ In the UK 2.264 companies were publicly listed in comparison to Germany with about 664 in 1994.

³⁴ See in this context section D, III, 2.2.2.1, combination model or conversion model

In specific German take-over models, assets are written up according to the price paid over the book-value and these assets are then depreciated at varying rates depending on their class. This step-up depreciation is generally tax-deductible, making it possible to reduce the tax liabilities of the target company and increase the available cash-flow volume. However, as a result of companies' preference for debt rather than equity financing when it comes to raising capital, some companies appear undercapitalised due to high debt levels and the fact that rapid depreciation was calculated in order to minimise profits and reduce tax liabilities.

1.3 The liability structure of German companies

As already cited in the preceding chapter German companies are usually very accustomed to operating with high degrees of financial leverage. According to the statistics of the Deutsche Bundesbank (1995), the average equity capitalisation of German companies decreased from 24.8 percent in 1970 to 18 percent in 1992.

As can be seen in table 22 published by the OECD (1995), the emphasis of German companies seems to be on bank debt financing rather than on equity, partially due to the stable macroeconomic environment which has existed in Germany over the past forty years. Low inflation, steady growth and relatively low interest rates have provided a solid base for German companies to plan their futures confidently and for German banks to grant funds for growth (Initiative Europe, 1996).

Table 22: Share of bank borrowing in German companies

	Share of bank borrowing in total liabilities in percent	Share of own capital in total liabilities in percent
1970	53.4	24.8
1980	53.6	19.2
1990	51.2	18.2
1992	51.7	18.2

(Source: OECD, Germany, 1995)

The following table presents the liability structure of companies in five countries with the ratio of bank debt to credit market debt ³⁵. The 48 percent found in Germany is considerably higher than that of other countries, such as US or the UK with 22 and 32 percent respectively.

Table 23: The liability structure of companies across countries

	Germany	USA	Japan	Italy	UK
Debt to banks/as a share of credit market debt	48	22	57	42	32

(Source: OECD, Germany, 1995)

2. Business activity of German LMBO companies

According to the German LMBO statistics from 1990 to 1996 published by the Initiative Europe and the CMBOR (1995/1997) and shown in table number 24, LMBOs have occurred in a wide range of industries. However, there is a higher concentration in the area of mechanical engineering where the percentage of LMBOs increased between 1990 and 1996 from 11.9 to 21.1 percent, in the area of business & other services where LMBOs increased from 5.9 to 14.4 percent. The sector of electrical, electronic & office machinery was characterised by a decline in LMBO percentage from 14.7 to 8.8 percent.

The results rank mechanical engineering and business/office service and leasing companies as the main LMBO target companies. This indicates that the growing trend among LMBO financiers to finance cash-flow oriented LMBOs in service-oriented industries - already mentioned by Hitschler in 1990 - was finally confirmed by the 1994 statistics. This development also gives managers of companies operating in service sectors which lack sufficient tangible assets but which generate strong cash-flows the opportunity to get the LMBO financing through bank debt which is then repaid by the cash-flow.

³⁵ Credit market debt signifies total liabilities minus equity and accounts payable to other affiliates

However, at the same time, the statistics confirm that production and mechanical engineering companies will continue to be considered as appropriate target companies for LMBO transactions due to the respectable amounts of tangible assets in their balance sheets which can serve as security for the LMBO loan.

Table 25: Business activity of German LMBO companies from 1990 to 1996

Business activity (in %)	1990	1991	1992	1993	1994	1996
Mechanical engineering	11.9	0.0	13.7	17.9	13.8	21.1
Business & other services & leasing	5.9	14.3	15.7	11.2	13.8	14.4
Electrical, electronic & office machinery	14.7	21.4	7.8	6.7	12.1	8.8
Food	2.9	0.0	0.0	2.2	3.4	8.8
Chemicals & man-made fibres	14.7	14.3	0.0	4.4	3.4	8.8
Metal goods	2.9	3.6	0.0	0.0	1.7	5.3
Timber, furniture	0.0	3.6	0.0	2.2	6.9	3.5
Shipbuilding & vehicles	2.9	7.1	2.0	4.4	3.4	3.5
Other manufacturing	17.7	10.7	9.8	4.4	3.4	3.5
Drink	0.0	0.0	3.9	2.2	3.4	3.5
Wholesale distribution	2.9	0.0	9.8	4.4	3.4	3.5
Leather goods, footwear & clothing	0.0	0.0	5.9	2.2	6.9	1.8
Paper, printing, publishing	8.8	3.6	9.8	4.4	5.2	1.8
Banking, insurance, finance	0.0	3.6	3.9	4.4	5.2	1.8
Metals	2.9	0.0	7.8	4.4	3.4	1.8
Construction	5.9	0.0	2.0	0.0	1.7	1.8
Retail distribution & repair	0.0	0.0	0.0	6.7	1.7	1.8
Textiles	0.0	10.7	2.0	2.2	5.2	0.0
Total	100.0	100.0	100.0	100.0	100.0	100.0
Number	34	28	51	45	58	62

[Source: CMBOR/BZW Private Equity/Deloitte & Touche Corporate Finance/Initiative Europe 1995, 1997)

3. Ownership, control and decision-making of banks in German companies

The German model of corporate governance exhibits quite different institutional characteristics from those in Anglo-American economies. A key aspect in the German governance model is the reliance on continuous monitoring of managers by shareholders who have long-term relationships with the firm and who participate actively in important aspects of the decision-making process of the company.

In the case of incorporated firms, stockholder influence is exerted through a two-tier company board structure. The importance of banks, in their dual role as both lenders and important shareholders has often been the source of controversy. According to Annette Kessel (1995) the influence of German banks on German companies can be divided into 3 main areas:

3.1 The influence of banks through equity holdings

One possibility for banks to influence the business activity of German companies is through their equity holding in those companies. Specifically, through their voting rights at general meetings, banks have considerable influence on various business aspects of the company:

- With their voting rights, the banks have influence on the appointment of the supervisory board members, who in turn choose the Chief Executive Officer of the company.
- If the bank holds more than 25 percent of the voting rights, it has the possibility to veto all decisions of ordinary importance to the company.

Research of equity holdings of the 10 biggest German banks conducted in 1989 (Die Bank, 1989) gave evidence to the fact that the number of companies in which banks held a minimum stake of 25 percent had decreased from 16 in 1979 to 8 in 1989. This trend has continued to date as banks sell off more and more of their industry holdings.

3.2 The influence of banks through proxy votes

The term ‘proxy’ indicates that banks have the right to exercise the voting rights on behalf of other shareholders who hold shares in safe custody at the bank. According to a study of Peters/Werner (1978), about 50 percent of all shares of domestic issues are in the custody of German banks and only 60 to 75 percent of the shareholders are actually present at the general meetings to exercise their voting rights.

According to section 135 of the Joint-stock Company Act (AktG), banks are allowed to exercise their proxy voting rights when they are authorised by the shareholders to do so. However, banks can only vote in proxy if they have been given general instructions on the individual items of the agenda by the shareholders. In 1992, banks and their associated investment funds controlled an average of 84 percent of represented votes at annual shareholder meetings of large, non majority owned firms where share ownership is widely distributed. This implies that banks, through both their own stake as well as their proxy votes, have a large influence at the annual shareholder meetings.

However, taking into account the large number of German companies with very concentrated holdings, where the share of bank proxy votes is considerably lower, the overall influence is somewhat less. According to a study of the OECD (Germany, 1995), among the 57 of the 110 largest industrial AGs who publish lists of attendance at shareholder meetings, banks had a majority voting stake in twenty-four and a blocking minority share in a further five companies. Their continued presence at shareholder meetings, allow banks to act as an independent outside monitor of corporate decision-making.

3.3 The influence of banks through the supervisory board

Larger firms in Germany, incorporated as joint-stock companies and limited liability companies with more than 500 employees are required by the Joint-stock Company Act (AktG) and the Limited Liability Company's Act (GmbHG) to have a two-tiered board structure. The German board structure distinguishes, laid down by law, the strategic role of the supervisory board ('Aufsichtsrat') and the day-to-day operations overseen by the board of directors ('Vorstand').

Two of the most important duties of the supervisory board are to act as a control device for the board of directors and to appoint its members. The reasons to appoint bank executives to the supervisory board of industrial companies are varied. First of all, as a result of their majority stake with their own voting rights and those in proxy. Secondly, a bank executive on the supervisory board of a company secures the support of the bank to a certain extent, in the event of difficult situations and or to facilitate the application for a loan.

3.4 The control structure of German companies

The German model of corporate governance has several institutional characteristics very different from those in Anglo-American economies. The main characteristic of the German corporate model is its reliance on continuous monitoring of managers by outside shareholders. They are very often involved in important aspects of the decision-making process and, when dissatisfied, take action to correct management decisions. In German incorporated firms, power is applied through the two-tier company board structure in which banks often hold significant stakes in the company. The importance of banks, in their dual role as both lenders and shareholders has very often been a source of controversy in Germany.

In contrast, the Anglo-American governance model is structured so that shareholders have little influence on management decisions. The shareholders can only express their dissatisfaction by selling their shares. The resulting pressure on share prices serves as an indirect threat to the management because it increases the risk of hostile take-overs and the potential change of management.

As a result of these differences, the stock market plays a much more central role in the Anglo-American model than its German counterpart which relies more heavily on the continuous participation of banks which creates a great potential for conflict of interests.

Conflict of interest can be especially strong due to the following factors:

- Small- to medium-sized companies are very important for the German industry and have an especially close relationship with their ‘house-bank’.
- The so-called ‘house-bank’ system implies a long-term relationship involving the exchange of information and continued service.
- In the relative absence of a strong market for equity issue, bank financing is extremely important for small- to medium-sized firms.
- Banks, through their own voting rights and proxy voting rights, have a strong influence on the decision-making process of the respective companies.

4. Reasons to sell and acquire the company

4.1 Reasons for owners to sell

In Matthias Gräper’s survey (1993), LMBO company owners, either individuals or corporations, were asked to give their assessment of the motives for the decision to sell the company. The following tables represent the motives of LMBOs from family-owned companies and LMBOs from divestments.

4.1.1 LMBOs of family-owned companies

As shown in table 25 the most important motive for owners of family-owned companies to consider an LMBO were 'succession problems'. In this context, Leimbach (1991) writes that German family-owned companies in a transition period from second to third post-war generation must face the fact that there are no interested or qualified inheritors to take-over the family business. The take-over of the company through management was therefore the only possibility to continue the company under its current structure.

As a second motive to sell the business, respondents mentioned the 'need to raise cash' followed by the 'necessity to redefine the companies activities'. 'Slow growth prospects', 'a new-definition of business activities', the 'lack of profitability' and the 'liquidation of the company' were cited as further reasons for the decision to sell.

According to Gräper (1993), the results of this research are an indication that in the course of the emerging succession problems of family-owned companies and the subsequent LMBOs, the existing business activities of many companies will have to be redefined. Any changes which emerge, however, will be implemented by the new owners/managers. The research indicates further that the former owner, as the sole decision-maker in the family-owned company, had put off necessary decisions about a new orientation of the company and had therefore prevented the realisation of wealth and growth potentials in the company.

Table 25: LMBOs of family-owned companies (n=36)

Reason to sell the company	Evaluation ³⁶	Ranking
Succession problems	2.06	1
Increased capital needs	2.67	2
Few growth prospects	3.33	3
New definition of business activity	3.56	4
Insufficient return rate	4.22	5
Liquidation of the company	4.62	6

(Source: Gräper, 1993)

4.1.2 LMBOs due to divestments

In spin-offs of non-core divisions or subsidiaries of national and international groups, the motives for the decision of an LMBO sale were ranked as follows. The prime motive for the spin-off was the desire to redefine the core-activities of the group.

The second most important motive was found to be the lack of profitability of the respective divisions and subsidiaries, an indication that they assumed the spun-off company divisions would be more efficient and profitable as an independent, relatively small- or medium-sized company. The new owner/managers recognised the wealth and growth potentials in the spin-offs which could only be realised if the divisions were managed as independent companies free from the constraints of group directives.

Factors like the retreat of the mother company, the increase of capital needs, the liquidation of the company or succession problems were regarded by the vendors questioned as less significant motives in their decision to sell group divisions.

³⁶ According to Gräper's evaluation scale, 1 stands for 'very important' and 5 for 'unimportant'.

Gräper (1993) concluded that national and international groups decided to spin-off of divisions or subsidiaries on the basis of a redefinition of their group activities as well as in the context of future growth and profitability prospects of certain business activities in the group. Controversial discussions about the ‘shareholder value’ of publicly listed companies in Germany has made the term a method for measuring success and has encouraged the strategic changes that heavily diversified groups need to return to their core-activities.

Table 26: LMBOs due to spin-offs

Motive	Evaluation ³⁷	Ranking
New-definition of core-activities	2.68	1
Lack of profitability	3.07	2
Retreat of the mother company	3.43	3
Minimum growth prospects	3.50	4
Increase in future capital needs	4.00	5
Liquidation of the company	5.00	6

(Source: Gräper, 1993)

4.2 Reasons for owners to sell to the management

The sale of a company to management is considered by many vendors as a viable alternative to a trade sale and has grown in importance over the last years. Fundamental concerns of the vendor like confidentiality, exclusion of sale to competitors and greater discretion in disclosing company information during the due diligence process were seen as advantages of LMBOs over trade sales.

In his research of German LMBOs, Gräper (1993) examined what motivated owners to sell to management instead of an external buyer. The results illustrated in the table below show that the LMBO transaction proved more efficient due to the management’s detailed knowledge of the company, and therefore influenced the selection process of a buyer.

³⁷ See note 36

This aspect along with the prospect of the most attractive price were found to be the predominant motives for German owners to sell their company to management. Further motives are of negligible importance which shows that purely economic factors and not a sense of social responsibility to maintain the company play a decisive role in the final LMBO decision.

Table 27: Motives of vendors for the sale of the company to management

Motives	Evaluation³⁸	Ranking
Least time consuming alternative	2.56	1
Most attractive price	2.89	2
Fewest problems in the purchase contract	3.22	3
Reputation of the vendor	3.28	4
Least disruption to company	3.33	5
Least publicity	3.39	6
No other likely buyers	3.44	7
Reputation of the company	3.47	8
Experience and qualification of the management	3.67	9

(Source: Gräper, 1993)

4.3 Reasons for managers to acquire

Gräper's survey (1993) also comprised the research of the motives for the LMBO management to acquire the company they work for. In the past, the entrepreneurial culture was less developed than in other European countries due to a number of factors such as high remuneration packages, job security, the status of being employed by a major corporation and the fact that bankruptcy was regarded as social failure (Initiative Europe, 1996). German managers therefore tended to be very risk-adverse and reluctant towards any opportunity for entrepreneurial activity.

³⁸ See note 36

However, according to the results of Gräper's survey, attitudes of German managers appear to be changing as the new generation of managers seem prepared to take risks by taking over the company they work for. The following table reveals the motives of German managers in their decision to participate in a management buyout according to priority:

Table 28: Motives for managers to acquire

Motives	Evaluation³⁹	Ranking
Belief in the success of the company	1.25	1
Freedom to manage their own company	1.97	2
Opportunity to create wealth	2.31	3
Personality conflict with new owners	2.78	4
Prospects of gains in a later sale	3.25	5
Freedom from group directives	3.61	6
Development of their own talents	3.64	7
Higher salary	4.69	8
Fear of dismissal	4.78	9

(Source: Gräper, 1993)

Similar to the entrepreneurial motives of management in the UK, the belief in the success of the company and the freedom to manage their own company were the dominant motives for German managers to participate in an LMBO. Motives like the wish for higher salary or the fear of dismissal which could be seen as more money related as well as the more emotional motives were ranked less important. These results provide evidence to the fact that German managers, who have been reluctant in the past to risk entrepreneurial action (due to their well-paid and secured positions) seem to be adopting a more and more venturesome attitude.

³⁹ See note 36

V. Summary of macro- and microeconomic LMBO factors in the UK and Germany

1. Summary of macroeconomic LMBO factors in the UK and Germany (I + II)

1. Economic background and LMBO environment

During the development of LMBO activity in the UK and Germany, the economic basis from which each country acted differed significantly. In the beginning of the buyout wave in the 1980's, the UK economy was weakened by a deep recession and the environment for LMBO opportunities was favourable due to widespread industrial restructuring and due to the fact that LMBOs were seen viable means to save companies from receivership. In late 1980's when buyout activity started in Germany, the national economy was strong and competitive, and companies saw no need for industrial restructuring. Therefore, LMBO activity was very slow to develop against this strong macroeconomic background.

In the UK, general industrial recovery began in 1982. At that time LMBOs were predominantly found in the form of divestment of divisions or subsidiaries from big conglomerates rather than in the area of receivership. In Germany from the 1990's on, increasing competition and ongoing globalisation with respect to the introduction of the Common European Market in 1992 prompted entire industries to restructure so that they could remain competitive in this changing economic environment. Furthermore, due to an industrial downturn in Germany, industries had to fight against the inefficiency and inflated wages that were able to emerge unnoticed during the previous years of economic success. In this context, LMBOs were seen as a vital part of the restructuring process and as a way to maintain the structure and independence of the important small- to medium-sized companies in Germany.

Economic recovery in the UK seemed to come to full circle in 1992 after a brief recession period at the beginning of the decade. The number of recession related divestment declined as a result, whereas succession problems caused an increase in LMBOs from family-owned companies. The privatisation wave in 1994 provided an added impulse for the LMBO market. In 1995 and 1996 large strategic disinvestments and public sector privatisations followed by growth in LMBOs from privately owned sources gave an additional impulse to the LMBO market leading to an estimated market value of £3.6 bn in 1996, the second highest after the peak value of £3.8 bn in 1989.

In 1993 the impact of recession hit Germany, a development which placed new pressure on companies to consider rationalisation of their often very diverse activities. The LMBO market also grew as an increasing number of privately-owned firms faced succession problems and increasing competition in an economic environment that had become more aggressive. Proprietors appeared to have changed their attitude towards selling their companies. In 1995 Germany's economic recovery ended in the last quarter of 1995 and recessionary conditions continued throughout 1996. This recessionary economic conditions forced national and international corporations to continue their rationalisation measures and to spin-off their non-core activities and encouraged elderly owners/managers of family-owned businesses to sell the company rather than to struggle through recession.

2. Description of the LMBO environment

2.1 Data about LMBOs

The most reliable and best researched data on LMBO activity in the UK comes from the Centre of LMBO Research (CMBOR) in Nottingham/UK. Data about German LMBOs, on the other hand, is very difficult to obtain and a number of deals, especially from family-owned companies in the former West German states, continue to be veiled in secrecy. The only precise data on LMBO/LMBI activity in the 'Neue Bundesländer', the former GDR, was obtained through the 'Treuhandanstalt', the government trust agency, which kept detailed records of the transactions they monitored and completed.

2.2 Main LMBO sources

The beginning of recessionary conditions in the UK in 1981 made divestment the main source of LMBOs, with domestic spin-offs at 59 percent and those of foreign parents at 14 percent. Receivership was the source of only 12 percent of all LMBO transactions. In Germany LMBOs from family-owned firms with succession problems accounted for 38 percent of the LMBO market from 1980 to 1990, whereas divestments remained the main buyout source representing almost 57 percent all LMBOs.

In the UK from 1982 on, divestment, especially from UK parents, continued to be the most important LMBO source amounting to 59 percent of all transactions, followed by family-owned companies at 19.6 percent in 1986.

Since the 1990's, LMBOs of family-owned companies have become more and more important in Germany, increasing from 11 percent in 1991 to 40 percent in 1994. Divestment from national and international groups have remained the primary LMBO source at 33 percent and 19 percent respectively in 1994. In 1995 and 1996 domestic divestments proved to be an important source of deals reflecting the consequences of industrial restructuring. In 1995 domestic divestments accounted for 58 percent of all transactions declining to 43 percent in 1996, followed by LMBOs from family-owned companies which dropped to only 16 percent in 1995 but increased to 34 percent of all transactions in 1996.

Since economic recovery appeared in the UK in 1992, recession related divestment of UK parent companies declined from 59 percent of all transactions in 1986 to 41 percent in 1994, whereas LMBOs of family-owned companies increased from 20 percent in 1986 to 35 percent in 1994. In 1995 and 1996, large strategic divestments have remained the most important LMBO source accounting for 50 percent in 1995 and 47 percent in 1996 of all LMBO transactions.

2.3 Volume of the LMBO market

LMBOs in the UK increased steadily in number and value from the beginning in the late 1970s until 1994. In 1984 there were a total of 240 transactions with a total value of £408m, peaking in 1989 at 375 transactions and a volume of £3.8bn. From 1989 on, the number of transactions ranged between 380 and 480 and levelled off at 404 transactions in 1994 with a total transaction value of £2.5bn. Between 1994 and 1996 the number of transactions fell to 372 and increased again to 402 transactions in 1996. The total value increased continuously from £2.8 bn in 1995 to £3.6 bn in 1996.

LMBO volume in Germany has much more modest transaction and value figures than in the UK. At the beginning of LMBO activity in the late 1980's, transaction numbers ranged between 25 and 36. In 1990 there were 36 transactions with a total buyout value of £292m. From 1991 on, the number of transactions increased steadily reaching its peak in 1994 at 59 transaction and a transaction volume of £733m. In 1995 the number of LMBO transactions increased to 74 reaching an estimated transaction volume of £540 m. In 1996 although the number of transactions fell to 62 the estimated market value exceeded for the first time the £1bn barrier reaching £1.148 bn.

3. Financial investors in LMBOs

3.1 The role and importance of venture capital firms

The UK plays a dominant role in the European venture capital industry with 45 percent of the total venture capital volume in Europe (ECU 26 bn) is administered by the British. The main sources for UK venture capital funds are pension funds at 41 percent and insurance companies at 15 percent. Venture capital alone from these sources accounts for 66 percent of the amount provided for investment.

The German venture capital industry has gained importance since the end of the 1980's when they first recognised the benefits of LMBO transactions. In contrast to the UK, the main sources for venture capital funds are banks at 59 percent and pension funds at 10 percent representing together 69 percent of the amount provided for investment.

3.2 The role and importance of venture capital funds

In the UK, essential impulses for the LMBO market came through the introduction of venture capital funds in the middle of the 1980's when more funds became available for investment in LMBOs. The same is true for Germany, where the first investment funds were created in the beginning of the 1990's in order to provide funds for LMBOs by institutional equity providers.

3.3 The role and importance of banks

The role of banks in the UK with respect to LMBO transactions differs greatly to that of their German counterparts. One reason for this is the separation of commercial and investment banking in the UK due to the Anglo-American 'Trennbanksystem', making it possible for UK banks to develop skills for these specialised finance transactions. In Germany, this development has been limited by the still prevailing 'Universalbankensystem', universal banking system, in which banks offer a wide range of financial products, making specialisation in any specific field less common. However, growing competition among German banks and their desire to establish a presence in this new business area has motivated banks to establish specialised departments with the skills required to structure and monitor LMBOs.

4. After the LMBO

4.1 Exit routes

Exit routes are an important aspect for investors in realising the return on their investment. According to the statistics of the CMBOR (1991), flotation at 47 percent and trade sales at 43 percent were the main exit routes for UK LMBOs in 1986. In 1996 trade sales became the most attractive exit route at 48 percent of all transactions, followed by flotations at 16 percent. In Germany, where exiting is one of the key problems for investors - mainly because of relatively inactive stock exchange - buy-backs at 65 percent and trade sales at 21 percent were the predominant exit routes for German investors in 1994. The exit channel 'going public' accounted for only 7 percent of all exits, a strong contrast to the UK.

4.2 Main impact of LMBOs on the economy

In the UK and in Germany, LMBOs play an important role in the way companies deal with the pressures of a highly competitive global economy. Deconcentration and deconglomeration have led many national and international corporations to spin-off units or subsidiaries which were outside their normal core-activities. In Germany, and also to a smaller extent in the UK, growing succession problems of small- to medium-sized companies have pressured company owners to look for alternative solutions. Furthermore, the LMBO concept has enabled especially small- to medium-sized companies as well as divested divisions and subsidiaries to remain intact with a management take-over, that would have otherwise faced insolvency.

5. Perspectives for the LMBO market

The UK LMBO market is the most mature of the European LMBO markets and originated out of the need for restructuring during the recession of the early 1980's. The aggressive advance of national and international venture capital firms has provided additional capital by establishing of venture capital funds.

Although recession seems to have been overcome in the UK, pressure from global competition continues to intensify and therefore corporate restructuring and divestment of non-core activities remain important in potential LMBOs in the UK. This in addition to increased activity in corporate mergers and acquisitions, which often lead to the sale of companies that do not fit within the new organisation, implies that the sources for LMBOs will remain substantial. Furthermore, the growing numbers of LMBOs from family-owned companies confirm the assumption that succession problems are becoming more and more important in the UK.

In Germany, the LMBO market has developed much more slowly than LMBO participants had hoped for, especially in view of the potential LMBO sources of divestment and family-owned companies facing succession problems. However, despite its slow development, the market has developed steadily and reached its highest level with a market value of £1.148bn in 1996.

Difficult economic conditions encourage elderly company owners to sell their companies rather than struggle through a recession, so family-owned companies will remain a prime LMBO source in the future. The divestment of units or subsidiaries also remains a solid source of further LMBOs as the impact of recession puts national and international groups under pressure to sell underperforming non-core activities. These economic developments and factors create a natural environment for LMBOs.

2. Summary of microeconomic LMBO factors in the UK and Germany (III + IV)

1. Form and structure of companies

1.1 Equity structure

In the different LMBO take-over models in the UK and Germany, equity and liability structures as well as the potential of hidden reserves in the assets of the target company can be vital to the success of LMBO transactions.

In the UK, companies are able to use the ‘market or current cost accounting method’ as an alternative to the ‘historical cost accounting method’ when declaring current value of their assets in their balance sheets. This allows them to capitalise the difference between historical value and current value in the equity of the company. As a result, the equity ratios of UK companies are relatively high, at approximately 49 percent in 1992. In capitalising the difference between historical and current values in their balance sheets, UK companies do not have any ‘hidden reserves’ which might be used as step-up potential for assets in an LMBO transaction to increase the depreciation volume and consequently the net cash-flow of the company.

In contrast, German companies disregard the possibility of revaluating their assets for tax reasons and practise instead the conservative method of historical cost accounting which allows for substantial ‘hidden reserves’ in the company’s balance sheet. The ‘hidden reserves’, however, might be used as step-up potential in an LMBO transaction to increase the depreciation volume and lower the tax burden, resulting in a higher volume of distributable cash-flow.

1.2 Liability structure

Statistics of UK company financing support the assumption that financing is predominantly achieved through internal funding (60 percent), relying less on external funding (40 percent). Bank financing is a relatively secondary form of external financing at only 21 percent, whereas securities at 36 percent serve as the main provider for cash in UK companies.

German companies on the other hand tend to rely on external funding, bank financing comprises 52 percent of total liabilities, rather than on equity financing. This is largely due to the stable macroeconomic environment in Germany over the last years.

2. Business activity of LMBO companies

Examining the period from 1990 to 1996 management buyouts in the UK occurred with the most frequency in distribution and service sectors like business services and leasing (from 21.4 to 26.1 percent), mechanical and instrumental engineering (from 8.8 to 10.4 percent) followed by wholesale distribution (from 8.0 to 9.7 percent) and electrical engineering (from 7.6 to 7.3 percent).

Similar to the results of the UK statistics, the statistics of German buyouts from 1990 to 1994 (Initiative Europe and CMBOR) reveal that a concentration of buyouts developed in the area of mechanical engineering (from 11.9 to 21.1 percent) business & other services (from 5.9 to 14.4 percent) and electronical, electronic and office machinery (from 14.7 to 8.8 percent).

The statistical results of the business activities in UK and German LMBO companies support the assumption that the growing trend among LMBO financiers is to finance cash-flow oriented LMBOs as well as companies operating in the service industry. This development gives managers of companies operating in this sector, who have good, predictable cash-flow, the possibility to get financing for an LMBO transaction without offering sufficient tangible assets as security for the loan.

3. Ownership, control and influence of banks on the decision-making process of companies
In Germany, banks have an immense potential to influence companies through their own voting rights, proxy votes, supervisory board membership and credit granted. In comparison to this strong governance structure in Germany, UK banks have far less influence on companies than their German counterparts. Furthermore, since UK companies depend much less on debt lending in preference to the stock exchange as provider of funds, the influence of UK banks on companies is much less dominant than that of German banks.

4. Reasons to sell and acquire the company

4.1 Reasons for owners to sell

In the UK, the prime reason for owners to sell their company was the decision to return to core-activities at 31 percent followed by the need to raise cash at 21 percent. Succession problems were not mentioned as major motives for the owners to sell. This answers were supported by the statistical evidence that LMBO's resulting from family-owned companies only gained importance as an LMBO source in the 1990's and still in 1994 ranked behind divestments with only 20 percent of all transactions originating from this source.

In Germany, in contrast, LMBOs resulting from the sale of family-owned companies due to succession problems were the most important motive for owners followed by the need to raise cash. In LMBOs resulting from divestment of divisions or subsidiaries, companies ranked a redefinition of their core activities and the lack of profitability of certain divisions or subsidiaries as their prime motives for divestment.

4.2 Reasons for owners to sell to the management

LMBOs were found to be the least time consuming selling alternative by owners in the UK and Germany. Their second most favoured motive was the attractive price offered by management.

4.3 Reasons for managers to acquire

In response to questions about their motives to acquire their businesses, managers in the UK and Germany regarded the freedom to manage their own company, the belief in the success of the company and the opportunity to create wealth as dominant motives.

VI. Overview of the UK and German macro- and microeconomic aspects

1. Overview of the UK and German macroeconomic aspects

	UK	Germany
1. Economic situation and LMBO environment	<p>At the beginning of the 1980's due to recession LMBO's were a viable means to save companies from bankruptcy. In the period of economic recovery from 1982 onwards LMBO's resulted mainly from divestments of national and international groups.</p> <p>In the short period of recession from 1990-1992 LMBO's as a viable means to save companies from bankruptcy became again more frequent. From 1992 economic recovery came to its full extent and LMBO's resulted mainly from divestments and family-owned companies.</p>	<p>Almost no LMBO activity in Germany.</p> <p>In the late 1980's due to a strong economic environment LMBO activity developed only slowly.</p> <p>From the 1990's onwards increasing competition and ongoing globalisation lead to restructuring of whole industries and more LMBO activity.</p>
2. LMBO environment		
2.1 Data about LMBO's	<p>The best and most reliable data comes from the Centre for Management Buy-out Research.</p>	<p>The best data is provided by the Centre for Management Buy-Out Research.</p>
2.2 Main LMBO sources	<p>In the beginning of the buy-out wave divestments and receivership were the main LMBO sources. From 1982 onwards divestments remained the main LMBO source. From 1992 onwards next to divestments family-owned companies became an important source.</p>	<p>From 1980-90 LMBO's from divestments and family-owned companies were the most common LMBO source.</p> <p>From the 1990's onwards family-owned companies became the most frequent LMBO source.</p>
2.3 Volume of the LMBO market	<p>From 143 transaction in 1981 with a value of 180 million pounds to 402 transactions with a value of 3,6 billion pounds in 1996.</p>	<p>From 36 transactions in 1988 with a value of 292 million pounds to 62 transaction with a value of 1,1 billion pounds in 1996.</p>
3. Financial investors in LMBO's		
3.1 The role and importance of venture capital firms	<p>Pension funds (41%), Insurances (15%) and Banks (10%) are the main investors.</p>	<p>Banks (59%), Pension funds (10%) Industry (9%) and Insurances (8%) are the main investors.</p>
3.2 The role and importance of venture capital funds	<p>Established in the middle of the 1980s. Increased fund raising in the 1990s.</p>	<p>Established in the beginning of the 1990s. Increased fundraising in the 1990s.</p>
3.3 The role and importance of banks	<p>UK banks are specialists in LMBO transactions due to separation of retail and investment banking.</p>	<p>German banks are generalists for all kind of finance transactions and serve as housebanks and consultants for companies.</p>
4. After the LMBO		
4.1 Exit routes	<p>In the middle of the 1980's flotation and trade sale were the main exit routes. In the 1990's the number of trade sales exceeded the number of flotations.</p>	<p>Buy-backs and trade sales have been the predominant forms of exit.</p>
4.2 Main impact of LMBO's for the economy	<p>LMBOs were a means for industrial restructuring. LMBO's kept small and medium sized companies independent and competitive.</p>	<p>LMBOs were a means for industrial restructuring and a possibility to keep small and medium-sized companies independent and competitive.</p>
5. Perspectives for the LMBO market	<p>Due to pressure from global competition, ongoing industrial restructuring and succession problems the LMBO market will remain active.</p>	<p>Due to pressure from global competition, ongoing industrial restructuring and succession problems the LMBO market will continue its growth.</p>

2. Overview of the UK and German microeconomic aspects

	UK	Germany
1. Form and structure of companies		
1.1 Equity structure	UK companies reveal relatively high equity ratios due to the applied "current cost accounting" method.	German companies reveal relatively low equity ratios due to the applied "historical cost accounting method".
1.2. Liability structure	External company financing is mainly achieved through securities.	External company financing is mainly achieved through bank debt.
2. Business activities of target companies	Most LMBOs occurred in the area of mechanical and instrumental engineering and business services and leasing and wholesale distribution.	Most LMBOs occurred in the area of mechanical engineering and electr. office machinery, chemistry and and mech. and instr.engineering.
3. Ownership, control and influence of banks	UK banks have less influence due to the separation of investment and corporate banking in the UK.	German banks have more influence on companies due to their combined activities in investment and corporate banking.
4. Reasons to sell and acquire the company		
4.1 Reasons for owners to sell	Spin-offs of non-core activities of groups resulted in LMBO's.	Spin-offs of non-core activities and succession problems resulted in LMBOs.
4.2 Reasons for owners to sell to the managers	Least time consuming alternative and most attractive purchase price.	Least time consuming alternative and most attractive purchase price.
4.3 Reason for managers to acquire	Believe in the success of the company and the opportunity to create wealth were the main reasons to acquire the company.	Believe in the success of the company and the opportunity to create wealth were the main reasons to acquire the company.

D. Development of country-specific LMBO models for the UK and Germany

The UK and Germany have established a complex legal and fiscal environment which involves different forms and rates of taxation and, in the general context of acquisitions, specific regulations about ‘financial assistance’ (UK) or ‘capital maintenance’ (Germany). Due to this complex fiscal and legal environment it is vital to determine the most appropriate take-over structure at the outset in order to optimise the result of the LMBO transaction for vendor and purchaser.

The following section will offer a brief discussion of the legal and taxation issues arising out of a leveraged management buyout transaction in the UK and Germany. The focus of this section will be on the comparison of take-over models in the UK and Germany explaining the principal methods of acquiring a company. These methods of acquiring a commercial enterprise are fundamentally different in their legal and tax effects, even if the commercial effect may prove similar. The following section will examine only the most important tax and legal issues and evaluate the difference between the LMBO techniques in the UK and Germany.

In the following context the below mentioned abbreviations will be used:

Share deal:	Acquisition of the shares of a company
Asset deal:	Acquisition of the assets of a company
Target:	Target company of the LMBO transaction
Newco:	Acquiring company

I. LMBO models in the UK

1. Legal framework

The following section will present the legal aspects of the acquisition of the share capital of a company. The company whose shares are to be acquired in the course of a take-over action may be a public company, but is more likely to be a private company due to the fact that private companies are the most common corporate form in the UK³⁷. Having decided the nature of the transaction, the purchaser will have to examine the possibilities of financing of his purchase.

³⁷ Out of 1,091,493 companies in the UK, 1,075,483 were private companies in 1992.

Since the most common financing form is cash and since only very few purchasers have enough cash resources to finance the transaction, they rely on bank credit in the form of a revolving credit or a term loan. Whatever form and amount of borrowing required by the purchaser to enable him to finance the acquisition of the target, the following issues have to be taken into consideration when considering a leveraged buyout of a corporation in the UK:

In the UK, where companies had originally been prohibited from purchasing their own shares, it soon became apparent that an equally unacceptable practice was giving ‘financial assistance’ to acquire the company’s shares. The classic method here was for a purchaser to borrow money from a bank and then to repay the bank out of the company’s funds after the take-over. The most relevant regulations concerning any form of ‘financial assistance’ as set out in Sections 151 to 158 of the Companies Act 1985 are presented in the following:

- Section 151, (1) Companies Act 1985

‘Where a person is acquiring or proposing to acquire shares in a company, it is not lawful for the company or any of its subsidiaries to give ‘financial assistance’ directly or indirectly for the purpose of that acquisition before or at the same time as the acquisition takes place.’

- Section 151,(2) Companies Act 1985

‘Where a person has acquired shares in a company and any liability has been incurred by that or any other person, for the purpose of that acquisition, it is not lawful for the company or any of its subsidiaries to give ‘financial assistance’ directly or indirectly for the purpose of reducing or discharging the liability so incurred.’

Therefore, any LMBO transaction which is proposed to be entered by the target should be examined with care in light of the Companies Act 1985 prohibiting ‘financial assistance’. In the course of an LMBO transaction in which the purchaser buys shares of Target and offers the assets of the target company as security, or in some other way obtains ‘financial assistance’ from the target company, the buyout parties have to ensure that what they propose is permitted by the Companies Act.

In this context it is also important to emphasise that the ‘financial assistance’ provisions of the 1985 Companies Act only relate to the acquisition of shares (share deal) and are therefore of no relevance whatsoever to business transfers (asset deals).

1.1 'Financial assistance'

In order to understand the extent of the above stated restrictions it is necessary to define the expression 'financial assistance' as it is set out in Section 152, (1) Companies Act 1985:

- *'Financial assistance' given by way of gift*
- *'Financial assistance' given by way of guarantee, security or indemnity*
- *'Financial assistance' given by way of loan*
- *Any other 'financial assistance' given by a company, the net assets of which are reduced to a material extent or which has no assets*

1.2 Exceptions to the prohibition of 'financial assistance'

Transactions which are prohibited by Section 151 Companies Act 1985 might fall within one of the exceptions set out in Section 153 (4) of the Companies Act 1985 or may even be capable of approval under the 'whitewash' procedure set out in Sections 155-158 (Wine, Beswick, Chapter 8, 1994).

1.2.1 Exceptions to the prohibition of 'financial assistance' concerning private and public companies

There are a number of exceptions to the prohibition of giving 'financial assistance'. According to Section 153 (1-4) Companies Act 1985 the following exceptions apply to both public and private companies:

- The company's principal purpose in giving assistance is not for the purpose of any such acquisition, or the assistance is for that purpose, but merely an incidental part of some larger purpose of the company.
- The 'financial assistance' is given in good faith in the interests of the company.
- The 'financial assistance' constitutes lending money in the ordinary course of the company's business.
- The 'financial assistance' is given for the purposes of an employee's share scheme.
- The 'financial assistance' constitutes lending money to employees to acquire shares in the company.

1.2.2 'Financial assistance' to private companies

For private companies, which are by the far the most common form in the UK, Sections 155-158 of the Companies Act 1985 contain exceptions from the prohibition of 'financial assistance' called the 'whitewash' procedure (Knight, 1992). The 'whitewash' procedure relates to the acquisition of shares in that company, or in that company's holding company, provided that the holding company is itself a private company, with no intermediate plc. in the chain of ownership. The most important aspect involved in the so-called 'whitewash' procedure is laid out in Section 155 of the Companies Act 1985 which regulates the following:

A private company is allowed to give 'financial assistance' for the acquisition of its own shares if the company has net assets which are not thereby reduced, or, to the extent that those assets are thereby reduced, if the 'financial assistance' is provided out of distributable profits.

However, in order to take advantage of Section 155 Companies Act 1985 a company must comply with a number of procedural requirements which have to be fulfilled before a transaction including 'financial assistance' can be completed. In summary the most important procedural requirements are the following ³⁸:

- *The company must convene an extraordinary general meeting for the passing of a special resolution. No special resolution is required where the companies concerned are wholly-owned subsidiaries.*
- *The company directors must give a statutory declaration containing a statement that the company will be able to pay its debts as they fall due during the year immediately following the date on which the 'financial assistance' is given.*
- *The company's auditors must present a report which has to be in accordance with Section 156 (4) of the Companies Act 1985.*

Due to the fact that the Companies Act 1985 imposes a strict timetable for the 'financial assistance' sanctioned by the 'whitewash' procedure, the participants must plan the transaction carefully if 'financial assistance' is part of the take-over concept.

³⁸ Additionally, there are several timing requirements within the 'whitewash' procedure which are excluded from this list.

2. Structuring the transaction

One of the initial and most vital decisions for LMBO transactions relates to the issue whether the shares (share deal) or the assets (asset deal) of the company are to be sold. There are a number of advantages and disadvantages to each course of action for vendor and purchaser and what benefits one party may of course disadvantage the other. In the following, the main taxation issues which arises in the course of the various structuring alternatives will be examined.

2.1 Take-over of the target company by means of shares (share deal)

A share deal implies that through the acquisition of a company by its shares, the purchaser acquires the complete company as a going concern which leaves the business carried on by the Target largely unaffected by the acquisition. In the context of an LMBO transaction, the establishment and use of a holding company set up by the management team as the purchaser (Newco) will facilitate the procedure from a financial, commercial and tax point of view.

The share deal can be completed in two different ways, either without the transfer of the assets of the target company or as a two-step model with transfer of assets of the target company after the share deal has been completed. The following will present a summary of both procedures emphasising advantages and disadvantages of the respective form.

2.1.1 Share deal without transfer of assets

The steps in a share deal without transfer of the assets are as follows:

- Founding of a holding company Newco
- Purchase of shares in Target by Newco, financed by the LMBO loan and
- Use of the assets of Target as security for the LMBO loan

In this model, the holding company borrows money secured by the target company's assets (subject to the regulations on 'financial assistance'). When profit is made by the target company, a dividend is paid to the parent company (Newco) which will pay the interest expense arising out of the LMBO loan. Interest is therefore paid out of Newco and, provided that the expenses are surrendered to the subsidiary (Target) by way of group relief³⁹, the cash and the interest expense end up in the correct company. Hence, the interest expense incurred by Newco can be used by Target to reduce its taxable profits.

³⁹ The term 'group relief' will be explained later in 2.2.2 of this section.

Advantage:

The main advantage of this form of acquisition for vendor and purchaser is the relative simplicity of the procedure. There is only one asset to be sold and purchased, namely the shares of the company compared with an asset deal in which each and every asset is transferred. Furthermore, a vendor normally prefers the sale of shares due to the fact that he can totally disengage himself from the business being sold⁴⁰. Secondly, a vendor prefers the share deal because he receives the take-over price direct from the purchaser. In an asset deal, the purchase price is paid to the vendor's company and will only then be distributed to the respective shareholders (Wine/Beswick, 1992).

Disadvantage:

First, purchasers are sometimes of the opinion that the commercial benefits of a share deal may be outweighed by the risks associated with any unknown liabilities he may have acquired along with the target.

Secondly, the 'financial assistance' provisions of the Companies Act 1985 relate only to the acquisition of shares and represent therefore a disadvantage of the share deal if the purchaser decides to include 'financial assistance' in the transaction. This is the case when shares are purchased and the assets of the target company are offered as security for the credit, the most common intention of LMBO transactions.

2.1.2 Share deal with transfer of assets

The second form of a share deal is a two-step model where the share deal is followed by the transfer of the assets of the target company. The required steps in this take-over model are as follows:

- Founding of a holding company Newco
- Purchase of shares in Target by Newco, financed by the LMBO loan and
- Transfer of the assets of the target to Newco

In this context it is important to emphasise that the transfer of the business from the LMBO target company to Newco is carried out by the acquisition of assets at net book value. (Hardman/Thornton 1986/87)

⁴⁰ Except in relation to warranties or tax covenants given on a sale, a vendor will have no continuing liabilities for the debts of the business.

According to Section 343 of UK tax law (ICTA 1988), all tax losses of Target are transferred to the new company which allows the compensation of future profits. However, according to Section 768 of ICTA 1988, this requires that within 3 years there is no major change in the structure of the shareholders or in the nature of the company business.

Advantage:

The main advantage of this take-over form is that, due to the business transfer of the target company to Newco, the purchased assets are now incorporated within the Newco and can be used to secure the LMBO loan.

Furthermore, due to the fact that the regulations concerning 'financial assistance' only apply to the acquisition of shares, the share deal followed by the transfer of assets offers all the advantages of an asset deal with respect to 'financial assistance'.

Disadvantage:

The share deal followed by the transfer of assets combines all advantages and disadvantages of share and asset deals. Firstly, the share deal promises a relatively simple acquisition procedure. This advantage might, however, be outweighed by the risks associated with any unknown liabilities which may be acquired along with the target. Secondly, the following asset deal requires a complicated transfer procedure due to the fact that each and every asset has to be identified and transferred.

2.2 Tax considerations concerning the share deal

There are several important aspects the vendor and the purchaser of company have to bear in mind when considering the choice between an asset deal and a deal from a tax point of view. The following offers a brief discussion of certain taxation issues that arise out of a LMBO in the form of a share deal. It does so from the perspective of the management, the acquisition vehicle Newco, the target company Target and to a limited extent the vendor.

2.2.1 Interest relief for the management buyout team

When a management buyout team is deciding to finance an acquisition with credit, one of the most important issues is whether or not it will be entitled to obtain tax relief on the interest payable. Section 360 of the Income and corporations taxes act 1988 states that interest relief is available for each shareholder holding at least 5 percent in a 'close company' or who works for the greater part of his time in the management or conduct of the 'close company'.

A 'close company' is, according to Section 414 of the Income and corporations taxes act 1988, a company which is United Kingdom resident and controlled by five or fewer persons (or by its directors, however many). In an LMBO transaction in which an investment holding company (Newco) is created in order to acquire the shares of the target company, this investment holding company is considered 'close' unless it exists wholly or mainly for the purpose of carrying on commercial trade. More broadly, only a company which makes portfolio investments will be regarded as a 'close' investment holding company (Knight, 1992).

The LMBO team is equally entitled to tax relief on the interest if the loan is used to acquire interest in an employee-controlled company (Section 361, Income and Corporation Taxes Act 1988). The conditions here are that the interest must be on a loan for the purpose of making an investment (as opposed to overdraft interest) and the loan should normally be with a UK bank.

2.2.2 Group relief

It is very important for the LMBO team to obtain relief for their interest payments. However, it is equally important for the LMBO Newco to obtain relief on the interests of an LMBO loan. This can be achieved in different ways. One way is through interest relief for companies within a group, so-called 'group relief' as explained in the following.

After the acquisition of the target through Newco, the target company may be a member of a group if it has subsidiaries or if it is a subsidiary itself. If the Newco company and the LMBO target company maintain their independent company status after the LMBO transaction, they might become a group. Under the Income and Corporation Taxes Act 1988 section 402 group relief applies between companies if one company is a 75 percent subsidiary of another or if both are 75 percent subsidiaries of a third. Knight (1992) states in this context that if a member of such a group incurs trading losses in an accounting period or has certain other amounts eligible for relief from corporate tax of that period, it may surrender the amounts to another company within the group where they can be used to relieve their own tax liability in the corresponding accounting period.

However, Newco must either be an investment or a trading company to be eligible for interest relief. If it is neither, there will be no relief for interest on any debt of the finance used for the buyout. Assuming that the investment status is established the interest of the LMBO loan is treated as an expense and can be 'group relieved' against the target's profits.

2.2.3 Retirement relief for the vendor

When a company is sold by a share deal, the purchase price is paid directly to the vendor and this involves a tax which is important to consider, namely the capital gains tax on the return on the sale of the shares. The vendor can avoid this tax charge if he qualifies for 'retirement relief'.

Individuals are eligible for 'retirement relief' who have reached the age of 55 (or who have retired on grounds of ill health below the age of 55) and who have shares or securities in a company. Retirement relief under Section 163 of the Taxation of chargeable gains act 1992 can be applied if the relevant conditions have been fulfilled over a period of at least one year ending with the sale (Wine/Beswick, 1992).

In a share deal, the relevant conditions are that the company is the individual's 'family company' and is either a trading company or the holding company of a trading group. The individual must also be a full-time director of the company or of any member of the group.

A 'family company' is one in which the voting rights are held

- at least 25 percent by the individual, or
- more than 50 percent by the individual or a member of his family and at least 5 percent by the individual himself.

(Source: Knight, 1992)

The period for which the relevant conditions are fulfilled is called the qualifying period. The maximum relief obtainable when the qualifying period is ten years or more is as follows⁴¹:

- The first £150,000 are tax free, and
- The return on the next £450,000 is reduced by half

Retirement relief regulations have become a very complicated tax area in the UK tax law. There are strict rules covering the transfer between spouses, for example, as well as provisions which allow potential vendors to aggregate earlier business periods to reach the maximum tax free amounts. However, these are just a few issues which might arise in such a transaction, LMBO participants cannot avoid going over the many possibilities and working through the exact figures.

⁴¹ The figures 150,000 and 450,000 are reduced when the qualifying period is less than 10 years. The relief is calculated in reference to the percentage which the qualifying period bears to 10 years (Wine/Beswick, Chapter 4, 1992).

2.3 Summary concerning the share deal with and without the transfer of assets

The above facts show clearly that the LMBO-model in the form of a share deal offers advantages for the vendor and also, to a limited extent, the purchaser of the target company. The main advantage for this take-over form for vendor and purchaser is clearly the relative simplicity of the acquisition procedure in comparison to the asset deal.

2.3.1 Share deal without transfer of assets

From the vendor's point of view, a share deal is normally preferred due to the fact that he can disengage himself from the business and from the liability for the debts of the company. From the tax point of view, the share deal offers the possibility of 'retirement relief' for the vendor if he fulfils certain conditions.

From the purchaser's point of view, a disadvantage of the share deal might be the regulations concerning 'financial assistance' which only relate to the case in which the purchaser buys shares and offers the assets of the target company as security. However, based on the exceptions to the prohibition of 'financial assistance' contained in Sections 153 or 155-158 of the Company Act 1985, the target company is allowed to grant financial support to the acquiring company if certain conditions are fulfilled. From a tax point of view the purchaser might see certain tax advantages in any substantial tax losses of the Target, which could be used to compensate future profits⁴². Another disadvantage may be that the acquisition of shares will not provide any step-up potential in the assets of the target so that an increase in the depreciation volume and consequently an increase in the cash-flow volume can not be expected.

2.3.2 Share deal with transfer of assets

From the vendor's point of view, the share deal with transfer of assets offers all the advantages already cited above in the context of the share deal without transfer of assets. A main disadvantage for vendor and purchaser here is the relatively complicated take-over procedure involving the relatively uncomplicated acquisition of shares followed by the more complex acquisition of assets.

⁴² Although the acquisition of shares in the target may not affect the target's trade, the target's business may change. If the old trade has been discontinued, any losses incurred in the old trade are not available to carry forward.

From the purchaser's point of view, the main advantage in this take-over form is the transfer of the assets of the target company to Newco which can then be used as security for the LMBO loan. A second advantage for the purchaser is that, based on the transfer of the assets to Newco, a potential step-up volume in Target's assets can be used in order to increase the depreciation volume and consequently the cash-flow volume of the target. This disadvantage is, however, mitigated by the fact that UK companies, unlike German companies, do not possess 'hidden reserves' due to the asset revaluation method applied by UK companies⁴³. Therefore, the utilisation of an asset step-up technique when Target's assets are transferred to Newco does not have the same effect in the UK as it does in Germany.

2.4 Take-over of the target company by means of the assets (asset deal)

In an acquisition of a business or asset deal, the purchaser acquires a collection of tangible and intangible assets which are directly incorporated into the purchaser's balance sheet. The purchaser can select those assets and liabilities which he wishes to take on and, by excluding unwanted assets and liabilities, avoid the risks associated with unknown liabilities or contracts he cannot fulfil (Beswick, Wine, 1992). From management's point of view, unless there are tax adjusted trading losses in the target company which can be transferred in a share deal, a purchase of assets will generally be the best action with regard to taxation.

In an LMBO transaction, the steps involved in an asset deal are as follows:

- Founding of a holding company Newco, and
- Purchase of the assets of the Target.

Advantage:

In an LMBO transaction, the purchaser requires debt to pay for the acquisition. An asset deal enables the purchaser to use the assets acquired as security for the sum borrowed. By contrast, utilising their own assets to secure the loan in order to acquire shares is generally prohibited by Section 151 of the Companies Act, except in the provisions for legal 'financial assistance' in the same section.

⁴³ See also Section C, III., 1.2, The Equity Structure of UK Companies.

Disadvantage:

Due to the fact that an asset deal involves the transfer of a business in which each and every asset is identified and transferred, this is obviously a relatively complicated acquisition procedure in comparison to the share deal in which only one asset is transferred.

2.5 Tax considerations for the vendor and the purchaser concerning the asset deal

2.5.1 Tax considerations for the vendor

A vendor may sell an asset at a price which is above or below its tax written-down value. (Higson, 1995). The vendor might suffer 'balancing fees' as tax authorities in the UK are able to charge companies the difference between the book net value and the purchase price when assets of the target company are sold above the written-down value. Considering this fact, the vendor will attempt to keep the value of these assets down so that no balancing fees arise (Wine/Beswick, 1992).

2.5.2 Tax considerations for the purchaser

The purchaser, on the other hand, will try to maximise the value of these assets so that depreciation (capital allowance) can be increased and consequently tax liabilities reduced and the available cash-flow volume increased. This is an essential consideration in planning an LMBO transaction, as additional cash-flow can be used to repay the LMBO loan.

3. Summary concerning LMBO-models in the UK

As set out in the previous section, there are various important points to bear in mind when it comes to the choice between a share deal or an asset deal from a commercial and a tax point of view. The structuring of an LMBO transaction by means of a share deal offers advantages for the purchaser and the vendor of the target company. Due to the regulations in the Sections 153-158 Companies Act 1985 which defines the exceptions to the 'financial assistance' regulations, the essential goals of the LMBO are:

- the utilisation of the assets of the target company as security for the LMBO loan, and
- the utilisation of the cash-flow of the target company in order to repay interest and the LMBO loan.

In this context, it is worthwhile to note, that even if the status of Newco and Target as independent companies is maintained (no merger or liquidation), tax advantages can still be realised with the group relief regulations cited in Section 402 of the Income and corporations taxes act 1988 which allow the compensation of Target's profits through Newco's losses.

From the purchaser's point of view, certain tax disadvantages may exist in a share deal. Among the most important is the inability to realise asset step-up potential. However, this disadvantage is mitigated by the fact that assets of UK companies are mostly recorded at market value without the supplementary step-up potential.

From the vendor's point of view, the LMBO transaction as a share deal has the most advantages. The most important among them is the Taxation of Chargeable Gains Act which enables the owner of a family business to get valuable relief from the capital gains tax when he or she reaches 'retirement age' or is forced to retire by ill health.

In the UK, an LMBO is typically structured as a share deal due to the fact that management buyouts have originated in the past and still often originate from peripheral, non-core businesses of groups which tend to be separate subsidiaries⁴⁴. Here, the clear goal of the vendor is to sell the subsidiary as a whole rather than to sell the assets of the subsidiary and to be left with an empty shell.

II. LMBO models in Germany

According to recent experience with LMBO transactions in Germany, some of the previously described LMBO techniques applied in the UK can be transferred and adapted to the German legal and tax regulations. As in the UK, the main characteristics of a German LMBO transaction is the goal to transfer LMBO debt to the target company, secured by Target's assets, and to use the cash-flow of the target company in order to repay interest and the LMBO loan. As in the UK, there are two major acquisition models: the purchase of shares and the purchase of assets. The examination of these two forms of acquisition - limited to the take-over of corporations - will be the focus of the following sections.

1. Legal framework

In Germany, a special LMBO technique has been developed to combine all possible tax and legal advantages for the vendors, purchasers and financiers of an LMBO transaction while at the same time circumventing any potential legal and tax problems that may arise. Holzapfel/Pöllath (1994) point out how necessary it is to use LMBO models which avoid the legal regulations concerning the 'capitalisation and maintenance of share capital'. This arises from following goals:

⁴⁴ See also Section C, I., 2.3, Main Sources for UK LMBOs.

- To utilise the assets of the target company as security for the LMBO loan, and
- To utilise the cash-flow of the target company in order to repay interest and the LMBO loan.

These regulations are similar to those in the UK concerning the prohibition of ‘financial assistance’ and will be examined in the following with respect to joint-stock companies and the limited liability companies, the most common company form in Germany⁴⁵.

1.1 Regulations concerning the maintenance of share capital

1.1.1. Maintenance of the share capital of the joint-stock company

The Joint-stock Company Act adheres to the fundamental principle that the registered capital of the joint-stock company, a minimum of DM 100,000, must be both paid in and maintained. The first principle is designed to ensure that the amount of capital paid in by the shareholders is not reduced while the company is founded nor immediately thereafter by agreements between shareholders and the company or among the corporate founders. The requirement to maintain the share capital is designed to ensure that the assets of a corporation remain intact and are not reduced by distributions at the expense of the corporation or its creditors, unless permitted by law. As a consequence, only profits may be distributed as dividends to shareholders.

According to Section 57 of the Joint-stock Company Act the regulations concerning ‘maintenance of capital’ for joint-stock companies are as follows:

- *Contributions may not be repaid to shareholders. The payment of the purchase price in the case of a permitted acquisition of company shares will not be deemed to constitute a repayment of contributions.*
- *Interest may neither be promised nor paid to shareholders.*

Furthermore, Section 71a of the Joint-stock Company Act is of utmost importance in LMBO transactions when the target company is a joint-stock company, as it prohibits giving ‘financial assistance’ directly (loan) or indirectly (security) to a third party in order to acquire its own shares.

A legal transaction which has the goal to grant an advance, a loan or a security through the company to a third person in order to acquire the shares of this company is invalid.

⁴⁵ See also Section C, IV., 1.1, The Legal Structure of German Companies. Out of 2.3 million companies in Germany, 264,000 were limited liability companies in 1992.

1.1.2 Maintenance of the share capital of the Limited Liability Company

To found a limited liability company under German law, the company must have a minimum nominal capital of DM 50,000. In order to maintain the share capital of the limited liability company, the Limited Liability Companies Act 1985 contains a number of provisions designed to ensure that share capital, once provided, is maintained. According to Section 30 Limited Liability Companies Act, the regulations concerning ‘maintenance of share capital’ for limited liability companies are as follows:

- *The company is not allowed to repay share contributions to the shareholders. Any payment to shareholders that reduces the net assets of the company below the stated amount of share capital is deemed a repayment of share capital.*
- *The company is not allowed to acquire, or take as security, its own shares if it reduces the net assets of the company below the stated share capital.*
- *The company is not permitted to redeem shares if this reduces the company’s net assets below the registered share capital.*
- *The company is not permitted to make loans to its managing directors or to other key officers and employees except on the basis of net assets which exceed the company’s share capital.*

After reviewing the above sections in the Limited Liability Companies Act, the question arises whether, aside from a direct repayment of contributed capital to a shareholder, capital maintenance rules might also apply in the case of upstream and cross-stream loans or of guarantees between affiliated companies. This often applies when the LMBO acquisition is financed by loans secured by guarantees or collateral provided by the target company (Oho, Behrens, Schneider, 1995).

According to Lutter/Wahlers (1989), it might represent a violation of the regulations on the maintenance of share capital if the LMBO company grants the security for the purchase of its own shares. In this context there is a dispute whether granting security itself or only paying out the secured amount represents a violation. Generally, Lutter/Wahlers assume that security granted to the LMBO company for the purchase of its own shares might in some cases be regarded as a violation of Sections 30 and 31 of the Limited Liability Companies Act and therefore prohibited by law.

However, the regulations concerning the maintenance of share capital contained in the Limited Liability Companies Act 1985 are less strict than those in the Joint-stock Company Act. Whereas the Joint-stock Company Act contains regulations concerning the maintenance of share capital that categorically prohibits the distribution of share capital to shareholders, the regulations in the Limited Liability Companies Act 1985 allow the distribution of share capital on the condition that the nominal capital is not diminished.

2. Structuring the transaction

One of the most important aspects which parties of an LMBO transaction have to consider is the question whether the proposed transaction involves the purchase of the company's assets or only the shares. Each method has advantages and disadvantages; it should not be overlooked that in many cases the advantage to the purchaser or the seller is at the same time a drawback for the other party. Thus, frequently, negotiations regarding the method of acquisition turn out to be the more controversial aspects of an acquisition process.

2.1 Take-over of the target company by means of shares (share deal)

In a German share deal, the ownership of the company is acquired by assignment of interest and the transfer of the title to the shares rather than through transferral of individual assets and liabilities (Feick/Bender, 1994). The share deal can be completed in two different ways, either without the transfer of assets of the target company or as a two-step model with the transfer of assets of the target company after the share deal has been completed. The following will present a summary of both procedures emphasising the advantages and disadvantages of each form.

2.1.1 Share deal without the transfer of assets

The steps of a share deal without transfer of assets of the target company are as follows:

- Foundation of a holding company (Newco) in the form of a limited liability company, and
- Purchase of the shares of the target company through Newco.

With respect to using the shares of the target company as security for the LMBO loan, the share deal represents the most uncomplicated model. In a share deal, Newco acquires the shares of the target company and uses them as security for the LMBO loan. In this case, however, the institutions financing the deal will insist on other forms of security due to the subordination of shares in case of insolvency of the target company. In most cases they will insist on the assets of the target company as security for the LMBO loan. Depending on the legal form of the target company this poses several legal problems based on the regulations of 'maintenance of share capital' discussed at the beginning of this section.

Advantage:

The principal advantage of the acquisition of shares in a company is the relative simplicity of the transaction. In contrast to the sales of assets, no transfer of the title to the individual company assets is necessary. The purchaser becomes the owner of the company including all assets and liabilities. From the vendor's viewpoint, the main attraction of a share deal is that all of the company's liabilities are transferred together with the shares. Another advantage can be seen in the fact that shares of the company can be used as security for the LMBO loan without considering the regulations for the 'maintenance of share capital'.

Disadvantage:

In an asset deal, certain assets and liabilities are selected for purchase by the buyer, whereas one crucial disadvantage of a share deal is that the company is transferred together with all undisclosed problems and contingent liabilities. More importantly, however, the assets of the target company cannot be used as security for the LMBO loan due to the regulations concerning the 'maintenance of share capital'.

2.1.1.1 Merger of Target with Newco

Upon completion of the share deal, a merger of Target and Newco takes place and all assets and liabilities of the target company are transferred by means of a 'universal succession'⁴⁶ to Newco. This gives Newco the possibility to use Target's assets as security for the LMBO loan without the problems arising out of the 'maintenance of share capital' regulations. The merger can only be completed, however, if 75 percent of Target's present owners of capital agree and the creditors suffer no damage. The shareholders of the target company receive shares of the acquiring company as compensation.

However, according to Section 348 of the Joint-stock Company Act, the merger of Target and Newco implied the transfer of Target's assets at book value. This had the disadvantage that any potential step-up volume in the assets of the target company could not be realised or used to increase the depreciation volume, reduce the taxable income and consequently increase the cash-flow (Holzapfel/Pöllath, 1994). However, according to the new Reorganisation Law (1995) the Target company is now allowed to transfer its assets at market value, which makes it possible to realise the existing step-up volume and consequently to increase Target's cash-flow potential.⁴⁷

⁴⁶ 'Universal succession' means that all assets and liabilities are transferred in one legal transaction opposed to the otherwise necessary individual transfer of each asset and liability.

⁴⁷ Section 24 of the new Reorganisation Law allows the transfer of Target's assets at values above book value.

2.1.1.2 Continuation of the Target as independent company

Another alternative after the acquisition of Target's shares is that Newco and Target remain independent companies. The condition is, however, that a controlling and surrender of profit agreement according to Section 291 of Joint-stock Company Act has to be made which allows Newco to exercise full control over the company and therefore obliges Target to surrender their profits to Newco. This alternative makes it possible for Newco to compensate interest expenses from the LMBO loan with the profits of the Target. However, the problem of using Target's assets as security for the LMBO debt remains unresolved.

2.1.2 Take-over of the target company by means of a share deal with transfer of assets (combination model)

The strategy commonly applied in Germany up until the end of 1994 in order to fulfil the interests of both vendor and purchaser was the 'combination model' which means a share deal followed by an 'internal' asset deal. This procedure is structured as follows (Picot, 1995):

- The Newco is founded in the form of a Limited Liability Company due to the favourable tax regulations in Section 17 of the Income Tax law with respect to a later sale of the shares through the LMBO team.
- The purchaser acquires the shares of the German target company through the newly founded Newco.
- Newco acquires the active business - including all assets and liabilities - from the target company (internal asset deal). Due to the fact that the assets are purchased at 'market value' the step-up potential of Target's assets are revealed and utilised to increase Target's depreciation volume, reduce the taxable income and increase the cash-flow. After purchasing the assets and liabilities from the target company, Newco can use Target's cash-flow for the payment of interest and debt as well as for security on the LMBO loan.
- The capital gains generated by the target company, i.e. the difference between the book value and market value of the sold assets, are transferred as a dividend to Newco.

- In order to avoid full taxation of this profit, Newco writes down the acquisition costs of Target's shares in an amount corresponding to the dividend income received (Bruse, 1991). The write-down is based on the following factors:
 - A. Newco's participation in Target is purchased at market value based on Target's equity value after the distribution of profits.
 - B. Newco's participation in Target increases with the transfer of dividends from Target to Newco.
 - C. Newco has the right to depreciate the value of their participation based on Target's equity value after the distribution of profits (Section 6 (1) Income Tax Act).

Advantage:

When a vendor sells shares, he is entitled to favourable tax treatment described in the following Section 2.2.11. As for the purchaser, due to the fact that the purchase price for the internal asset deal is allocated to depreciable assets, the step-up potential of Target's assets can be realised and used to increase the depreciation volume, reduce the taxable income and increase the net cash-flow volume of the target company. Secondly, due to the transfer of Target's assets to Newco, the assets can be used to secure Newco's LMBO loan.

Disadvantage:

As the assets of the business of the target company are not transferred in one legal transaction but individually, a complicated legal procedure concerning the transfer of each and every asset and liability ensues (Oho, Behrens, Schneider).

The following example of the balance sheets of a purchasing Newco GmbH and a target company should help to illustrate the previously presented steps and mechanisms of the acquisition based on the 'combination model'.

2.1.2.1 An example calculation of the ‘combination model”

Step 1 and 2: Acquisition of the Target through a share deal

The Newco GmbH acquires the shares of the target company for 450. For the sake of simplicity, it is assumed that only equity is used.

Holding GmbH Newco		Target GmbH Target	
<hr/>		<hr/>	
Participation	450	Assets 50 (Goodwill 400)	Equity 50

Step 3: Transfer of assets

Newco acquires the assets of the target company at market value in the amount of 450. Target receives cash in the amount of 450. Target has to pay 45% corporation tax and 15% trade tax (resulting from the difference of the book value and the market value of the assets) in the amount of 162 (capital gains = 450 - 50 = 400).

Newco		Target	
<hr/>		<hr/>	
Participation	450	Cash 450	Equity 50
Assets	450		Profit 400

Payment of corporation (102) and trade (60) tax

Target	
<hr/>	
Cash 450	Equity 50
	Profit 238
	Taxes 102
	Taxes 60

Step 4: Distribution of profits

Profits, after deduction of the taxes resulting from the capital gains, are transferred by Target to Newco as a dividend.

Holding		Target	
Newco			
<hr/>		<hr/>	
Participation	450	Cash	Equity 50
Assets	450		
Receiv. (dividend)	238*		
Receiv. (corp.tax)	102		
* Distributable profit		238	
3/7 refund tax		+102	
		<hr/>	
		340	

Step 5: Extraordinary write-down of Newco’s participation in the Target in the amount of the distributed dividend (340)

In order to avoid full taxation of the dividends transferred by Target, Newco writes down the cost of the shares of Target in an amount corresponding to the dividend income received by Target.

Holding		Target	
Newco			
<hr/>		<hr/>	
Participation	110	Cash	Equity 50
Assets	450		
Rec.(dividend)	238		
Rec.(corp.tax)	102		

2.1.2.2 An example tax calculation for the ‘Combination model’

1) Vendor (Step 1, share deal)

½ of income tax rate

According to Section 17 of the Income Tax Act, the vendor, as a natural person, may claim for corporate gain relief on the proceeds of the sale of a participation up to 25 percent. The proceeds of the sale of a participation over 25 percent are taxable at half of the applicable income tax rate.

2) Target (Step 2, transfer of assets and taxation of profit)

-153 corporation tax (45% on 340)
+ 51 reduction corp. tax rate due to distribution of profits (15/45 of 153)
= - 102 corporation tax
- 60 trade tax on profit (15% on 400)

3) Newco (Step 3, transfer of assets and depreciation of profit)

-153 payable corporation tax 45% of 340 (= 238 distributable income
+ 102 refund corp. tax

+ 153 depreciation (45% on 340)
+102 refundable corporation tax 3/7 of 238
= + 102 corporation tax
+ 51 trade tax reduction (15% of 340)

Total tax charge from step 1-3:

Corporation tax -102 (step 2) + 102 (step 3)	=	0
Trade tax - 60 (step 2) + 51 (step 3)	=	9

As seen in the above calculations, the combination model combines advantages for the vendor in the form of the share deal and the purchaser in the form of an internal asset deal as a result of the extraordinary write-down which allows for compensation of corporate tax expenses. Koenen/Gohr point out that, as trade tax expenses can not be fully compensated in the combination model, the ‘conversion model’ (described later in section 2.4) was introduced in early 1995 to enable a take-over without any tax disadvantages.

The vendor of a company usually prefers a share deal whereas the buyer prefers an asset deal in which they can select each individual asset of the corporation for purchase and take-over the liabilities separately.

2.2 Tax considerations for the share deal and the ‘combination model’

2.2.1 Tax considerations for the vendor

The individual vendor’s goal is to minimise the tax burden resulting from the sale of a company. Under German tax law, the capital gains resulting from the sale of shares of a company are treated more favourably than capital gains derived from individual assets (Oho, Behrens, Schneider, 1995).

2.2.1.1 Vendor as individual

According to section 17 of the Income Tax Act, capital gains derived from the sale of shares are tax free, provided the vendor is an individual, the shares do not belong to a business and the vendor has not held more than 25 percent of the share capital of the company five years prior to the sale. If the vendor has held more than 25 percent of the share capital in the five years prior, capital gains of up to DM 30m⁴⁸ per year are subject to a preferential tax rate at half of the average income tax rate (Section 34 Income Tax Act). In addition, there may be tax free allowances of up to DM 20,000, but the maximum allowance is only granted if the vendor sells all of the shares of the company and the capital gains do not exceed DM 80,000 (Section 17 (3) Income Tax Act).

2.2.1.2 Vendor as corporation

The profit resulting from the sale of the target through a corporation is subject to the full corporate tax.

2.2.2 Tax considerations for the purchaser

The purchaser of a company will attempt to allocate part of the purchase price to tangible and intangible assets in order to increase depreciation volume and create tax deductible expenses. Holzapfel and Pöllath (1994) write that in a share deal the purchaser has considerable tax disadvantages due to the fact that the asset depreciation volume of the acquired company is limited to the book value, whereas the asset deal enables the transfer of assets at market value and therefore allows for significant asset step-up potential.

⁴⁸ This amount has been reduced to DM 15m in the context of the so-called “Law for the continuation of the corporation tax law reform”.

2.3. Summary concerning the share deal and the ‘combination model’

In a share deal without the transfer of assets, the above facts show very clearly that the purchase of shares is preferred by the vendor of the target company but is generally avoided by the purchaser for the following reasons:

- The use of assets as security for the transaction is limited by various legal restrictions.
- The use of the cash-flow of the target company for repayment of interest and debt are regarded as ‘hidden distribution of dividends’ in tax legislation and would therefore be subject to corporation tax.
- A share deal prevents the realisation of ‘hidden reserves’ and therefore an increase of the depreciation and cash-flow volume.

The LMBO model combining a share deal and an asset deal clearly unites all advantages which arises from pure asset or pure share deals for the vendor and the purchaser. In summary, the following advantages are achieved with the combination model:

- Through a share deal, the vendor as an individual can use all of the tax advantages granted through Sections 17 and 34 of the Income Tax Act.
- Through an asset deal, the purchaser can record the assets purchased at market value generating a higher depreciation volume which leads to reduced taxable income and higher cash-flow.
- Through an asset deal, the purchaser can use the assets of the target company as security for the LMBO loan and use the cash-flow of the target company to repay interest and debt.
- Through the transfer of Target’s dividends to Newco, which increases Newco’s participation in Target, Newco can write-down the acquisition costs and thus compensate the profits arising from Target’s dividend transfer to Newco.

According to recent experience with LMBO transactions in Germany, the key factor for the success of a leveraged transaction lies in the possibility to use the step-up potential of Target’s assets for tax efficient depreciation and to use the resulting increase in cash-flow for reinvestments, repayments and as a cushion for other risks inherent in the transaction.

The legal risks involved in the 'combination model' have been reduced by two decisions of the German Supreme Tax Court. The first overruled a 1990 decision of the regional tax court in Münster which deemed the 'combination model' illegal. A decision in July 1993 found once again in favour of the parties which applied the 'combination model' in an acquisition (Oho, Behrens, Schneider, 1995).

However, when trade taxes cannot be totally compensated, the 'combination model' does not offer the most favourable conditions for a tax effective acquisition. Under the new Reorganisation Civil and Tax Law, which came into effect at the beginning of 1995, new take-over models have become possible. Target either becomes a member of a partnership, but conserves its identity, or is fully merged into a partnership. These alternatives provide even more tax advantages than the 'combination model' which, however, can still be applied. The following section will describe the changes implemented in the new Reorganisation Law and will illustrate the 'conversion model' with an example take-over in which the target company is converted into a partnership.

2.4 Take-over of the target company by means of the 'conversion model'

According to the changes in the Reorganisation Law stated in Section 190 the conversion of a company from corporation to partnership is possible without any transfer of assets. The prerequisites are that 75 percent of the shareholders agree to the conversion into a limited partnership (KG) and 100 percent of the shareholders agree to the conversion into other forms of partnership.

Rödter/Hötzel (1995) write in this context that in addition to the conversion from corporation to partnership, Section 2 of the new Reorganisation Law (UmwStG) also allows the merger of corporations and partnerships through incorporation or through founding a new partnership. The assets of an existing corporation are then transferred into an existing or newly founded partnership. According to Sections 43 and 50 of the Reorganisation Law, the merger is only possible if 100 percent of the shareholders of the partnership and 75 percent of the voting shareholders of the corporation are in agreement with the transaction.

2.4.1 Old ‘Reorganisation Law’ before changes

The former Reorganisation Law permitted the conversion of a corporation to a partnership only on the basis of a transfer of assets at ‘market value’ which implied that ‘hidden reserves’ had to be revealed and were subject to income tax at the rate of the partners in the partnership. According to Rödder/Schaumburg (1995), this structure has long been criticised by tax experts for preventing the conversion from corporations to partnerships with heavy taxation of the profits resulting from the asset transfer.

2.4.2 New ‘Reorganisation law’ after changes (1995)

Blumers/Beinert (1995) see advantages in the new ‘conversion model’ in that the conversion from corporation to partnership can be executed without revealing the ‘hidden reserves’ during the transfer. Here, the net book value of assets of the corporation remains while the corporation is converted into a partnership. In the context of an LMBO, the steps of the ‘conversion-model’ are as follows (Oho, Behrens, Schneider):

- Management acquires the shares of the target company through a purchaser limited liability company which buys a 100 percent stake in the target. The purchaser limited liability company acquires the shares at market value.
- The target company is converted into a limited partnership (GmbH & Co. KG) in which a newly created limited liability company becomes the partner with full responsibility and the purchaser limited liability company becomes the partner without responsibility. The assets and liabilities are transferred at net book value.

The tax effects hereby are as follows:

- The transfer from corporation to partnership is completed at net book value (Fischer, 1995)
- Due to the fact that the purchase price of the shares of the corporation exceeds the historical book value of the assets and liabilities of the target company, the partner can claim a loss from the transfer of shares (Section 4 Reorganisation Law).
- No corporate income tax is payable although there is a step-up of the book values of the assets of the target company which increases the depreciation volume, reduces the taxable income and consequently increases the available cash-flow of the partnership. (Sagasser/Bula, 1995).

2.4.3 An example tax calculation of the ‘conversion model’

- 1) Corporation A is converted into partnership B. The balance sheet of A is as follows at the date of the transfer:

Assets	500	Equity		200
		Reserves	EK 50	100
			EK 45	50
			EK 01	50
			EK 04	100
<hr/>		<hr/>		
	500			500

It is assumed that the target company has ‘hidden reserves’ with respect to the assets capitalised as follows:

Assets:	250
Goodwill:	109

Corporation tax which is refunded once the dividend is distributed:
 $(50/50 \times 100, 45/55 \times 50) = 141$

Therefore, the market value of the corporation is 1000 in comparison to the net book value of 500.

Taxation:

	Net book value of shares:	500
./.	Market value of shares	1.000
=	Loss resulting from the transfer before tax refund	./. 500
+	Refund of corporation tax	+ 141
=	Loss resulting from the transfer after tax refund	./. 359
	Income tax for partner of the partnership	0
	Corporation tax refund for partners in the partnership	./. 141

The newly created partnership has the following balance sheet after the transaction:

Assets	859	Equity	859
	(= 500 + 359)		
<hr/>		<hr/>	
	859		859

2.5 Summary concerning the ‘conversion model’

In summary, Rödder (1995) acknowledges the following advantages with respect to the changes in the Reorganisation Law and the arising possibilities for an acquisition with the ‘conversion model’:

- The take-over of the target company by means of a share deal brings tax advantages for the seller of the Target (as an individual) as laid out in Sections 17 and 34 of the Income Tax Act.
- The following conversion from corporation to partnership allows the continuation of the net book value of Target’s assets. The step-up potential of the Target’s assets can still be realised which leads to an increased depreciation volume, reduced tax liabilities and an increased net cash-flow.
- Due to the fact that no profits are realised, no trade tax has to be paid by the corporation or equity holders in the partnership. Since no trade tax has to be paid this represents a real advantage over the previously described ‘combination model’ in which trade tax expenses are not completely compensated.

Taking all the above facts into consideration, the changes in the Reorganisation Law have improved the legal and tax framework dramatically for classic restructuring (especially restructuring corporations) and corporate take-overs. The previously described structure in the form of a share deal followed by the conversion of the target company into a partnership clearly offers more advantages for seller and buyer than the ‘combination model’.

However, Blumers/Marquardt (1994) point out that the conversion from corporation to partnership might incorporate certain risks and disadvantages for the corporate buyer in some respects. The newly created partnership could, for example, be tied into a pure corporation structure or certain tax privileges may only be available corporations, such as group relief if corporations form a fiscal unity for corporation and trade tax purposes.

2.6 Changes in the tax law in 1997

2.6.1 Changes in context of the acquisition of a company

The so-called “Law for the continuation of the corporation tax reform” brought through its changes considerable disadvantages for buyers of a company who acquired shares from an individual as vendor owning up to 25 percent of the company. Due to the fact that these vendors could profit from their capital gains tax free based on section 17 of the Income Tax Act the government decided that the acquired company should not profit from additional tax advantages through a higher step-up volume of its acquired assets which would have led to a higher depreciation volume and therefore to a reduced tax burden. Therefore, according to the newly introduced section 50c of the Income Tax Act buyers who acquired company shares from individuals holding up to 25 percent of the shares could were not allowed to step-up the acquired assets according to their purchase price.

2.6.2 Consequences of the changes in the tax law

Due to the fact that the changes in the tax law relate to both take-over models - to combination model and to conversion model - the described advantages of this models could not longer be maintained if the buyer acquired company shares from individuals who fell under the regulations of section 17 of the Income Tax Law. Since, historically, owners of small to medium sized companies in Germany structured their shareholdings in that way that they could profit from the regulations of section 17 of the Income Tax Law many LMBO transactions from family-owned company had to be completed without the help of comfortable tax advantages which led in the past to considerable tax savings for the LMBO target company.

2.7 Take-over of the target company by means of an asset deal

In a sale of assets, the ownership of each individual asset has to be transferred to the purchaser. By excluding unwanted assets and liabilities from the acquisition, the purchaser has the great advantage of avoiding the risks associated with unknown contracts or liabilities he can not identify at the time of the acquisition (Wine/Beswick, chapter 2, 1992). In the context of an LMBO transaction, the steps for an asset deal are the following:

- Foundation of the holding company Newco, and
- Purchase of the assets of the target company.

The most natural and uncomplicated way to use the assets of the target company as security for Newco's LMBO loan is to structure the acquisition as an asset deal. In this LMBO model, the assets of the Target are incorporated into the balance sheet of Newco and can therefore be used as security.

Advantage:

In an asset deal, the parties are free to determine which assets and liabilities are to be transferred to the purchaser. Thus, one of the key advantages of an asset deal is the ability to select among the assets and liabilities they wish to transfer. Another very important advantage of an asset deal is that the purchaser is liable only for those obligations of the target company he assumes outright (Feick/Bender, Chapter 27, 1994). Furthermore, the purchaser of Target's business takes the assets at market value and can therefore realise the step-up potential in the assets in order to increase the depreciation volume, reduce the tax liabilities and increase the cash-flow volume of the target company. In this way, the purchaser seeks to utilise the surplus cash-flow generated by the target company to service the obligations of the LMBO loan and allocates the assets as collateral for the lenders of funds in the acquisition.

Disadvantage:

As the assets are not transferred by assignment of interests or transfer of title like in a share deal, the asset deal is much more complex. Each individual asset must be transferred separately. Further, for the vendor to be released from those liabilities which are transferred to the purchaser, the consent of each individual creditor is required.

2.7.1 Liquidation of the Target with liquidation resolution

According to Holzapfel/Pöllath (1994), the most effective way to use the target company's assets to finance an LMBO debt is the liquidation of the target company followed by the purchase of the assets by Newco. In this way, Target's business is purchased by Newco by means of an asset deal out of the liquidation process.

2.7.2 Liquidation of the Target without liquidation resolution

Holzapfel/Pöllath (1994) state further, that a similar procedure can be applied without prior resolution, provided that 75 percent of Target's shareholders agree. However, due to the legal complications of this procedure, a sale of the company without prior liquidation is hardly ever done in Germany.

2.8 Tax considerations concerning an asset deal

2.8.1 Tax considerations for the vendor

For the vendor as an individual, Sections 16 and 34 of the Income Tax Act can be applied to the asset deal, granting the vendor a 50 percent reduction in income tax for the proceeds of the sale of its assets (or even shares in a partnership). The vendor in the form of a corporation cannot use Section 34 of the Income Tax Act as it applies only to individuals. (Hensel and Merz, 1992).

2.8.2. Tax considerations for the purchaser

It is the purchaser's goal to allocate part of the purchase price to the purchase of tangible and intangible assets in order to increase depreciation and consequently the number of deductible expenses. To achieve this goal, the individual assets must be purchased from the target company. Shares of a company may only be written off if the company suffers a lasting decrease in value.

2.9 Summary concerning the asset deal

In contrast to the advantages for the vendor in a share-deal, the asset deal presents legal and tax advantages for the purchaser. Therefore, in order to reach an acceptable compromise for vendor and purchaser in an LMBO deal, the 'combination' and 'conversion models' have been developed to offer legal and tax advantages for both sides.

IV. Summary concerning LMBO models in Germany

The previously described take-over models offer advantages and disadvantages which the respective parties have to take into consideration in an LMBO transaction. In conclusion, it can be said that the vendor normally prefers the share deal from a commercial and a tax point of view. From the commercial point of view, the share deal allows the vendor to disengage himself totally from the business and to assume no liability for the debts of the business. From a tax point of view, the share deal entitles the vendor, as an individual, to favourable tax conditions as laid out in Sections 17 and 34 of the Income Tax Act.

The purchaser, on the other hand, prefers the asset deal, because he has the possibility of purchasing selected assets at 'market value', therefore realising the step-up potential of the target's assets which leads to an increase of the depreciation volume, a reduction in the taxable income and an increase in cash-flow volume. Furthermore, due to the fact that target's assets are incorporated into the purchaser's balance sheet, the target's assets can be used to secure the LMBO loan.

In combining the share deal with an internal asset deal (combination model) or with the conversion of the corporation into a partnership (conversion model), the main goals of both the vendor and the purchaser can be reached. For the vendor, this means minimising the tax burden resulting from the sale of the business. For the purchaser, this means allocating part of the purchase price to the acquisition of tangible and intangible assets to increase the depreciation volume, reduce the taxable income and increase the net cash-flow.

Despite all the above-mentioned factors, it is not possible to cover all the taxation issues which may arise for vendor and purchaser or to treat the issues which are covered in great depth in this section. In any event, the take-over parties must always seek specific professional advice in order to take full advantage of the existing take-over models for the planned LMBO transaction.

	UK			Germany			
	Share deal without transfer of assets	Share deal with transfer of assets	Asset deal	Share deal without transfer of assets	Share deal with transfer of assets combination model	Asset deal	Conversion model
1. Utilisation of the assets of the Target as security for the LMBO-loan	Possible under the conditions of sections 153-158	Possible without restrictions	Possible without restrictions	Possible for Limited liability company	Possible without restrictions	Possible without restrictions	Possible without restrictions
2. Utilisation of the cash-flow of the Target for repayments of interest and LMBO-loan	Possible under the conditions of sections 153-158	Possible without restrictions	Possible without restrictions	Not possible	Possible without restrictions	Possible without restrictions	Possible without restrictions
3. Utilisation of the step-up potential of the Target's assets in order to increase the depreciation volume and therefore the existing cash flow potential of the Target	Not possible	Possible	Possible	Not possible (exception partner-ships)	Possible (with exception of section 50c EStG)**	Possible	Possible (with exception of section 50c EStG)**
4. Utilisation of tax advantages for the vendor	Possible under the conditions of section 163 TCGA 1992 *	Possible under the conditions of section 163 TCGA 1992 *	Not possible	Possible	Possible (with exception of section 50c EStG)**	Not possible (exception partner-ships)	Possible

* Taxation of capital gain act 1992
** Income tax act

E. The impact of the LMBO concept on the post-buyout performance of companies and the evaluation of post-buyout performance of German LMBO companies under difficult economic conditions

I. Introduction

In the past several years leveraged management buyouts have continuously increased in importance in the UK and have also become an important part of industrial restructuring in Continental Europe. Examining the first transactions in the US over time, researchers like DeAngelo, DeAngelo and Rice (1984), Marais et al (1986) and Lehn and Poulsen (1989) found that in the typical LMBO, investors are willing to pay pre-buyout shareholders a considerable premium above the existing market price of the company in order to complete the transaction.

Further studies about the effects of L(M)BOs completed mainly in the US documented the impact of L(M)BOs in several aspects such as ownership and capital structure by Jensen (1989), corporate tax liabilities by Lowenstein (1989), employment and operating efficiency by Lichtenberg and Siegel (1990) and profitability by Bull (1987/88) and Kaplan (1989) in order to explain the underlying reasons for the increase in wealth after completion of the take-over.

The evidence from these studies - which will be presented in detail in chapter III of this section - prove that L(M)BOs improve their operating performance after the buyout transaction. Several hypotheses on the reasons for the increase in wealth have been researched such as reduced agency costs and new managerial incentives by Jensen (1986, 1989), wealth transfer from public bondholders and employees to the investor group by Schipper and Smith (1989) and Shleifer and Summers (1988), information held by managers that is not known to public shareholders by Kaplan (1989) and tax advantages by Lowenstein (1989). The relevance of these hypotheses as well as the evidence found to confirm or reject them will be presented in part II of this section.

The following empirical research will examine whether the findings showing improvement in operational performance are confirmed by German LMBO companies in times of economic recession. The section is structured as follows:

The first section will introduce the issue of post-buyout performance changes and the increase in wealth recognised in LMBO companies.

Section two establishes the theoretical basis for the research by presenting a review of existing theories.

Sections three to six present previous empirical research concerning post-buyout performance in the US, the UK and Germany and compares post-buyout performance of UK and German LMBO companies.

Section seven summarises the existing evidence about post-buyout performance.

Section eight presents the empirical research of this study, outlining the reasons and goals and steps of this research, presenting the results and conclusions as well as recommendations for further research in the area of LMBOs.

Section nine completes and reinforces the findings of the empirical research with detailed case studies based on interviews conducted with owners/managers and financial investors of the LMBO companies examined in the empirical research.

Section ten presents an overall impression of the interviews.

II. Theoretical basis of the research

Since the first L(M)BO wave in the beginning of the late 1970s in the US, there has been extensive debate as to the reasons for the increase in wealth of L(M)BO companies after a buyout. Several theories have been developed in the context of this debate. Wright, Dial and Hoskins (1997) state in this context that a number of theoretical aspects and theories help explain the generation of buyout transactions among which the most important will be presented in the following:

1. Review of existing theories concerning wealth increases of LMBO companies

1.1 Tax hypothesis

One explanation for the success of leveraged management buyouts is the tax argument presented in studies by Lowenstein (1986) and Lehn and Poulsen (1989). From their perspective, the most visible and the most easily quantified source of this success are the tax savings or tax shelters which are not novel, but with their combined effect a major portion of the take-over price in a leveraged management buy-transaction can be financed out of tax generated cash-flow. According to Lowenstein and Lehn and Poulsen, there are two different tax generated funds used to finance LMBO transactions.

The first type covers the debt tax shields created by the LMBO transaction that are created by the increased interest deductions as a result of the debt financing. The second type is a non debt related tax shield resulting from a step-up of the assets of the target company. Since the purchase price greatly exceeds the vendor's net book value, the difference can be used to create step-up volume and to increase the depreciation level of the target company.

As a result of these tax shields, the purchaser of the firm can use the available cash-flow to service the LMBO loan. However, Lowenstein argues that the tax issues associated with leveraged management buyouts have to be seen in proper perspective. The tax savings are correlated in these transactions, and as their evidence suggests, going private transactions are not exclusively a function of tax considerations.

1.2 'Take-over defence' hypothesis

In the defence theory set out in a study by Michel and Shaked (1986), the basic assumption is that LMBOs are a defensive strategy against hostile take-overs by outside parties. By buying the company, existing managers protect themselves from potential redundancy after a hostile take-over. Accordingly, one would expect firms that are likely to be the subject of an LMBO to have hostile take-over bids made prior to the buyout .

The reasons companies become the target of a hostile take-over is not addressed in the study by Michel and Shaked (1986). The possibility of poor company performance is mentioned prior to the take-over bid but the authors do not really offer a theory for why and when a take-over candidate would use a leveraged management buyout transaction rather than some other type of defence (Kieschnik, 1995).

1.3 'Defective managerial compensation' hypothesis

Another theory about LMBOs is presented by DeAngelo, DeAngelo and Rice (1984) in their study of going private transactions. Supplementary to their reduced 'agency cost' hypothesis, they argue in their 'defective managerial compensation' hypothesis that managers in public corporations are not always able to receive a proportionate share of the gains resulting from investment decisions. By taking over the firm, management can therefore create compensation contracts which are directly related to the firm's performance. However, this argument fails in view of the fact that many LMBOs make their exit on the stock market and return to the capital markets after some years. If a public corporation makes adequate compensation difficult, the question remains why managers would wish to return to capital markets.

1.4 'Bondholder expropriation' hypothesis

Marais, Schipper and Smith (1989) proposed the hypothesis that gains for shareholders in the form of the premiums paid in a leveraged buyout transaction are partially due to the transfer of wealth from bondholders of the target company to shareholders. Under this assumption, one should see bondholders suffer a loss of wealth when the transaction is completed. However, Marais, Schipper and Smith (1989) examined the transfer of wealth from bondholders in a sample of 103 LMBOs between 1974 and 1985 and found it to be minimal on average, so that his 'bondholder expropriation' hypothesis could not be sustained.

1.5 'Employee wealth transfer' hypothesis

Shleifer and Summers (1988) suggest that the increase in wealth after a leveraged buyout transactions is based on the fact that wealth is transferred away from the employees to the investors by lay-offs or wage reductions. This 'employee wealth transfer' hypothesis suggests that the operating income improves at the expense of employees. However, according to Kaplan (1989), who tested this hypothesis in LMBO companies, the results are not consistent with the notion that large number of employees are laid off after a buyout.

1.6 ‘Information advantage’ or ‘asymmetric information’ hypothesis

The ‘information advantage’ or ‘asymmetric information’ hypothesis asserts that managers wish to obtain control of the firm, because they believe, based on superior information, that the firm is significantly undervalued by external investors. This hypothesis is based on the assumption that information is asymmetrical between managers and public shareholders.

In a study by Kaplan in 1989, this hypothesis was tested on several indirect pieces of evidence. First, he examined the ‘informed’ pre-buyout shareholders who sold their shares in the buyout companies and did not re-invest in the post-buyout company. Second, he compared the number of proposed buyouts to that of take-overs by external bidders. Third, pre-buyout financial projections were measured against the final post-buyout results. None of the results obtained supported the existence of either an undervalued company or a distinct information advantage of the managers.

In the following, two of the most important hypotheses in the context of LMBO transactions will be presented: the ‘agency cost’ and ‘debt bonding’ hypotheses. These theories examine how governance changes in combination with leveraged financing affects the post-buyout performance of LMBO companies.

1.7 ‘Agency cost’ hypothesis

Economists and scholars have long recognised the potential of conflict of interest between managerial incentives and stockholder interests in publicly traded companies. The ‘agency cost’ theory based on such conflicts has long been a major subject of economic literature. Jensen and Meckling (1976) first researched these conflicts, analysing the control problems within a company. Going private transactions in the form of LMBOs can alleviate conflicts by concentrating control and ownership in the management or providing an outside monitor resulting from the burden of debt. The following chapters will present the main aspects in Jensen’s agency cost theory.

1.7.1 Free cash-flow and the conflict between managers and owners

Jensen (1989) suggests that going private transactions in the form of LMBOs mitigate a special type of agency problem in firms with low growth prospects and a substantial amount of free cash-flow. Low growth prospects suggests that the firm operates in quite a mature market and has few opportunities to reinvest cash-flow in the business.

With respect to agency costs, the free cash-flow problematic arises when there is excess cash-flow after funding all of the projects with a positive net present value when discounted at the relevant cost of capital. Jensen (1989) argues that this free cash-flow should be paid out to shareholders in order to maximise shareholder value. But the difficulty is to motivate managers to distribute excess cash-flow to shareholders rather than invest it in the projects with negative net present value.

In 1988, Jensen writes further that the reluctance of managers to pay out dividends to shareholders is due to the fact that this distribution of cash would reduce the resources controlled by the managers, thereby reducing their power and potentially subjecting them to being monitored by capital markets as often occurs when a firm needs new capital. Furthermore, a growth in the company's assets increases management's power by increasing the resources under their control and the level of their compensation which is positively related to growth.

In 1989 Lehn and Poulsen (1989) investigated the source of shareholder gains (the average value of the premium in the examined firms was 36,1 percent) in 263 going private transactions from 1980 until 1987, researching among other issues the free cash-flow hypothesis proposed by Jensen.

According to Lehn and Poulsen (1989), the free cash-flow hypothesis suggests that the portion of a firm's assets in free cash-flow should relate directly to the likelihood of a firm going private, and at the same time keeping the firm's growth prospects constant. For each firm in both the going private sample and the control sample, Lehn and Poulsen calculated undistributed cash-flow for the year immediately preceding the buyout. They discovered significant differences in undistributed cash-flow and growth rate across the two samples which support Jensen's assertion that targets of going private transactions are characterised by significant undistributed cash-flow and relatively low growth rates.

The results in Lehn and Poulsen's research confirm the free cash-flow hypothesis with respect to the source of shareholder wealth in going private transactions. By comparing firms that went private with a control sample, they found the likelihood of going private to be directly related to the growth rate in sales. Furthermore, they found premiums paid to shareholders in going private transactions to be positively and significantly related to undistributed cash-flow.

1.7.2 The role of debt in motivating organisational efficiency

The second factor in Jensen's agency cost theory is the role of debt in encouraging organisational efficiency. In his study of 1986, Jensen states that debt creation effectively binds managers to their promise to distribute future cash-flows to the shareholders. By issuing debt instead of stock, the promise of a pay out of future cash-flow is more binding than a simple dividend increase. This gives debtors the right to take the firm into bankruptcy if they do not keep their promise to service their debt requirements. Thus, so Jensen argues, debt reduces the 'agency cost' of free cash-flow by reducing the cash-flow that can be spent at the discretion of management.

In a study of 25 LMBOs between 1971 and 1983 Bull (1988) found anecdotal evidence from managers/owners of LMBOs for Jensen's theory on debt as a controlling device in leveraged buyout transactions. According to his interviews with LMBO managers/owners, debt reduction was a dominant common goal. High debt service requirements eliminated the possibility of free cash-flow and therefore eliminated another possible cause of the agency cost of free cash-flow.

In his study about the development of LBO companies between 1980 and 1987, Yago (1991) found evidence that LBO companies could improve return on equity after the buyout. In this study, evidence suggests that in most industries where debt and restructuring were intensive, the increase in productivity was considerable. Concerning the change in the sales volume of LBO companies, Yago (1991) provided evidence that for firms that had issued high yield securities in 1983, the average annual sales growth after issue (1983-1986) was almost twice the rate before (1980-1983). In his conclusion, Yago (1991) suggests that debt had a positive impact on corporate performance across a wide range of performance variables.

Thompson, Wright and Robbie examine in their research of 1992 whether the high level of debt in LMBOs increases the incentive for management to improve performance. In their research of LMBOs between 1984 and 1989, Thompson, Wright and Robbie (1992) examined among other issues the 'debt-bonding' hypothesis (Jensen, 1986) which suggests that the need to service debt obligations motivates management. In order to prove this hypothesis, the debt/equity ratio at the time of the deal was measured.

In the results of the study the debt/equity ratio was positive and significant in explaining excess returns to equity investors, and negative and generally insignificant in the excess return to total capital equations. This results were entirely consistent with the theory of the favourable impact of leverage on investor returns for successful companies, but it gave no support for the effect of incentive on performance proposed in the hypothesis. Therefore, the results could not confirm the 'debt-bonding' hypothesis that debt *per se* has a positive impact on the performance of leveraged management buyouts.

1.7.3 Summary concerning the agency cost hypothesis

According to Jensen, each company represents a network of agency relationships, in which principals as shareholders delegate certain management tasks to one or several agents. The conflicts resulting from this relationship - based on the potentially asymmetric information between agent and principal - can lead to suboptimal decisions and eventually a decrease in the company's value. To help resolve the agency cost problem and increase the firm's value, the LMBO concept relies on the following key components:

- Participation of management in the equity of the company, and
- Higher leverage on the company.

First, through the participation of management in the equity of the company, ownership has been found to increase management's incentives to ensure that efficiency increases. As a result, the value of the company increases and consequently also the value of management's equity.

Second, the high amount of debt required to complete LMBO deals reduces the agency cost of free cash-flow by binding managers to the use of available cash-flow in fulfilling the debt requirements and therefore reducing the cash-flow available for management to spend at their discretion.

III. An overview of Previous Empirical Research in the US concerning post buyout performance measure

There have been a number of empirical studies of leveraged (management) buyouts and the increase in wealth which has made these transactions successful in recent years. In this study, not all of the research will be presented, rather only that which provides evidence about post-buyout performance in the area of financial performance, productivity and strategy.

1. Research concerning stockholder premiums

During the past years of L(M)BO activity in the US and the UK, an increasing number of leveraged management buyouts have taken place and shareholders have received substantial gains in the form of premiums on these transactions. The source of stockholder gains in American going private transactions were researched by DeAngelo, DeAngelo and Rice (1984), Marais et al. (1986) and Lehn and Poulsen (1989) and evidence suggests that shareholders receive a bid premium at least as high as in conventional tender offers.

In 1984 De Angelo, De Angelo and Rice examined the effect of going-private proposals on public stockholder wealth of seventy-two firms over the period of 1973 to 1980. According to De Angelo, De Angelo and Rice in many going private transactions the current managers of the company had already the majority control of the public corporation and obtained the complete equity in the course of the going private transaction. The resulting managerial conflicts of interest based on management's position as agent for public shareholders and as purchasers of shares were assumed to result in an unfair treatment of public shareholders. The gain-sharing hypothesis proposed by De Angelo, De Angelo and Rice predicted positive wealth changes for public shareholders based on the assumption that ownership structure changes could generate productive gains. The results of the tests confirmed that the two days surrounding the initial proposal to go private, the wealth of public shareholders increased by an average of 22.27 percent. In contrast, stockholder wealth decreased an average of 8.88 percent at withdrawal of going private proposals. In their conclusion De Angelo, De Angelo and Rice state that the similarity of stockholder gains observed in going-private and interfirm or tender offer suggests that going-private transactions did not result in the exploitation of minority stockholders.

In 1986 Marais, Schipper and Smith investigated the effect of the going private buyouts of 290 public corporations on the value of the existing senior securities. In the 68-day period preceding the appearance of the buyout announcement, common stock, convertible debt and convertible preferred stock experienced positive price reactions documented by returns averaging 9 percent, 3 percent and 12 percent.

Lehn and Poulsen (1989) measured the average premium paid in going private transactions from 20 trading days immediately preceding the going private announcement to the final trading price of the firm's common equity. According to their results, the average value of premium for the 257 sample firms amounted to 36,1 percent.

These results are further confirmed by the research of Hite and Vetsuypens (1989) who examined the shareholder wealth effects associated with asset sales to corporate insiders. Hite and Vetsuypens found evidence that in the two-day period around the divisional buyout announcements, parent company shareholders experience statistically significant returns of 0,55 percent on average. According to the authors these results are consistent with the hypothesis that LMBOs of divisions represent an efficient reallocation of corporate resources to higher valued uses and allow parent company shareholders to share in the potential benefit of this change in ownership.

As proven in the previously described research, pre-buyout investors also profit from the substantial wealth gains associated with leveraged buyout transactions. LMBO hypotheses suggest that the primary source of these gains is the new value created through significant improvements in operating performance. The following section will present some of the most important research examining these improvements in US, UK and German LMBO companies.

2. Research concerning operating performance improvements

In 1987/1988 Bull compared management performance of 25 companies before and after leveraged buyouts. In his study, average performance for the two years before a leveraged buyout is compared to average performance for the two years after the buyout by means of seven accounting variables. Comparisons are made of pre- and post-buyout performance for the same entity as well as of company performance and industry performance. As a result of this research, Bull found evidence that financial performance after the buyout is superior to performance before the buyout.

The evidence in his research also confirms the assumption that management changes its focus from minimising the variability in the reported profits to maximising cash-flow. This conclusion is based on the changes in earnings/beginning equity and cash-flow/sales which illustrate the change in management focus. The increase in the average return on equity, according to Bull, is partly due to leverage and partly to better management. The sharp increase in the variability of earnings is considered as a result of leverage as well as opportunistic behaviour.

Income tax savings are not suggested by Bull to be the driving force behind leveraged buyouts. The significance of the change in the ratios of ebit to beginning assets, sales to beginning assets and operating profit to sales provided strong evidence that improvement in efficiency and profitability are important reasons for leveraged buyouts because they are business related, not tax generated gains (Bull, 1988). According to Bull the reason for the improvement in performance could not identified with certainty, but based on the anecdotal evidence by the interviewed managers/owners, debt reduction provided a dominant goal, eliminating free cash-flow and therefore eliminating an agency cost problem. Furthermore, the entrepreneurial aspect seemed to provide an overall explanation. Entrepreneurs were alert to opportunities that would benefit them and acted to create wealth for the company and an improvement in their equity position.

In 1988/89, Kaplan presented his research on the changes in operating results of 48 sample LMBOs of public companies completed between 1980 and 1986. His analysis focuses on the change in three cash-flow variables: operating income before depreciation, capital expenditure and net operating cash-flow. These variables were all measured before taxes to limit the analysis to changes based on managerial and operational decisions, not on taxes or financial decisions. Each cash-flow variable was measured in three different ways - as a fraction of total assets and as a fraction of annual sales. In the three years after the buyout, the 48 sample companies experienced an increase in operating income and net cash-flow and a reduction in capital expenditure. Operating income, measured net of industry changes, is essentially unchanged in the first two post-buyout years and 24 percent higher in the third year. Changes in the ratios of operating income to assets and to sales exceeded those of the industry average by approximately 20 percent in the first three buyout years (Kaplan, 1989).

Furthermore, Kaplan found evidence that the median net cash-flow in the first three post-buyout years was significantly larger than in the pre-buyout years. Similarly the LMBO company's increase in net cash-flow to assets and to sales exceed that of their industry by approximately 50 percent. The evidence presented, according to Kaplan, confirms the hypothesis that LMBO companies experience post-buyout improvements and an increase in value, which seemed to be generated by improved incentive rather than transfer of wealth or management's superior information.

In 1990, Smith reinforced Kaplan's findings in an examination of 58 LMBOs between 1977 and 1986. She defines operating cash-flow as profits before interest, taxes and depreciation plus changes in working capital. Her results show that the operating cash-flow per employee and the operating cash-flow per book value of assets increase on average after an LMBO, both in absolute terms and in relation to non-LMBOs in the same industry. One source of improved cash-flow appears to be better management of working capital, however, Smith does not find any evidence that the post-buyout cash-flow improvements are based on cutbacks in areas like research and development or advertising. The improvements in operating cash-flow are correlated with the buyout induced changes in debt ratio and management ownership and are consistent with the view that these organisational changes play an important role in improving performance (Palepu, 1990).

In 1990, Singh researched company performance in 55 LMBOs between 1980 and 1987. In Singh's study, operating performance is measured by operating income to sales and growth rate in sales. He also examined operating ratios such as numbers of days receivables and inventory sales to assess the nature of the firm's performance versus the industry standards of the same period. The evidence suggests that there are significant differences in the key operating indicators of firms which go private and their industry counterparts. Inventory management and accounts receivable are significantly more favourable in LMBO companies than the industry average. Improvements in operating indicators occur over a short period and suggest that managers make radical changes in the operations of the firm to achieve these goals. Furthermore Singh examined the increase in total revenues of the private firms when compared with the industry average (Singh, 1990). The evidence suggests that LMBO companies grow faster in revenues than the industry average, and that they operate more efficiently in terms of inventory management, accounts receivable and operating income. Singh's findings suggest an increase in performance after the LMBO, which may be attributable to the changed equity structure of the firm.

3. Research concerning productivity improvements

In 1990, Lichtenberg and Siegel (1990) investigated the effects of leveraged buyouts between 1981 and 1986 on productivity and the related variables using an extensive database including over 12.000 manufacturing plants. The results of the analysis reveals that LBOs that occurred during 1983 and 1986 had a strong positive effect on total productivity in the first three post-buyout years. Plant productivity increased from 2 percent above the industry mean in the three pre-buyout years to 8,3 percent in the first three post-buyout years. The LBOs that occurred in 1981 and 1982 did not have a significant effect on productivity in any post-buyout year. According to Lichtenberg and Siegel, the analysis reveals that productivity is significantly higher in the first three years after the buyout than it was before the buyout, but they emphasise that they cannot prove that the LBO was the cause of the improvement. However, the fact that the productivity increase is accompanied by other changes like the reduction in the ratio of white-collar to blue-collar worker, which might have been caused by the LBO, raises doubt about the assumption that productivity would have increased without an LBO.

4. Research concerning changes in strategy and performance

In 1995, Phan and Hill published a study on the effects of leveraged buyouts on goals, strategy, structure and performance. In their research, they used a survey to collect data on a sample of 214 firms that underwent buyouts between 1986 and 1989. In the summary and conclusion of their results, Phan and Hill revealed in the first place that in addition to the increase in debt, LBOs are associated with an increase in management holdings. Second, the changes in governance that occurs with an LBO does affect the goals, strategy and structure of a company. Efficiency receives more and growth less emphasis. Diversified scope and hierarchical complexity diminish and decentralisation increases. Third, these changes in goals, strategy and structure provide for greater efficiency as demonstrated by the increase in productivity and profitability. Fourth, management holdings seem to have a greater impact on the goals, strategy and structure than is the case with debt. On the basis of these results the authors could not reject either the 'free cash-flow' or the 'agency cost' theory that leveraged buyouts lead to an increase in enterprise efficiency.

IV. An overview of previous empirical research concerning post-buyout performance of LMBO companies in the UK

Systematic evidence concerning performance changes of LMBO companies outside the US was and still is very limited in scale and scope. Since 1986 most of the research concerning the development of the UK LMBO market was carried out by the Centre for Management Buyout Research (CMBOR). In the following section only those surveys will be presented which evaluated the post-buyout performance of LMBOs in the UK up to date.

1. Research on the short term performance changes

In this first study about the development of UK LMBOs in 1985, Wright and Coyne examined LMBOs from their beginning in the 1970s until 1983. The results of Wright and Coyne's research were obtained through responses to questionnaires sent to LMBO companies which underwent LMBO transactions during this time and focused mainly on the profitability and liquidity after the buyout. The evidence of the research revealed that profit and sales performance of the LMBOs two years after the buyout displayed either substantial or slight growth for half of the companies, while fluctuating growth occurred in twenty-five to thirty percent. Up to 25 percent of the examined sample showed a decline in growth and a negligible percentage of companies showed no change after the buyout. Evidence suggests further that the performance in sales is better than in profits for the sample companies, as a result of reduced profit margins. For the LMBOs less than two years old, performance results were more varied. Fifty percent of these companies performed better than expected, and a substantial portion, 38 percent, performed worse than expected. In these companies performance in sales is also better than in profits, indicating again reduced profit margins. Concerning the factors affecting the changes in wealth, Wright and Coyne (1985) note that some factors have a beneficial effect on profits, while others have the reverse effect. Among the most influential factors, industrial and market factors are cited as helpful in improving profits in 20 percent of the cases, but also contributed to a decline in profits in 13 percent of the companies. Furthermore, the evidence suggested that LMBO managers were able to control overhead costs and increase productivity, whereas there is also support for the assumption that profit margins were squeezed.

When the cash-flow and liquidity situation of the sample companies were researched Wright and Coyne (1985) found that 46.9 percent of the sample companies did not experience cash-flow problems. The 53.1 percent of the companies which experienced cash-flow problems were split between 21.6 percent who had cash-flow problems before the buyout, 13.5 percent who had cash-flow problems only after the buyout and 18 percent who had liquidity problems before and after the buyout. With respect to post-buyout cash-flow problems, Wright and Coyne (1985) found evidence that the principal cause of post-buyout liquidity problems was not achieving the expected profit margins. The other important cause was debtor-related, based firstly on debtors using their market power to delay payment and secondly on the inefficient debtor control systems by the LMBO companies. In their conclusion, Wright and Coyne point out that at the period of the study (1985) it was still too early to make a firm conclusion about the performance of LMBOs. The evidence presenting the success range of LMBOs went from highly successful to barely surviving. The authors also pointed out that the economic recession put a strong constraint on the improvement in performance of LMBO companies, but that also the burden caused by the financial debt might not have been helpful in this respect.

In 1989, Thompson, Wright and Robbie continued the research of Wright and Coyne and presented the results of post-buyout performance of LMBO from 1983 to 1985. Concerning sales figures, the majority of the sample companies were not only better than before the buyout (37 percent were substantially better and 24 percent were slightly better) but they also exceeded the business projections presented before the buyout (26 percent were substantially better and 20 percent were slightly better). In terms of operating profit, the majority of the sample LMBO companies performed better than before the buyout (56 percent substantially better and 13 percent slightly better) and also exceeded the projections presented to finance institutions to secure the financing (39 percent performed substantially better and 13 percent performed slightly better). In their conclusion, Thompson, Wright and Robbie (1989) confirmed the assumption that the success of LMBOs can be attributed to the concept of uniting ownership with control. They conclude further that the effects of managerial equity ownership were reinforced by the use of debt in the capital structure of the newly bought firm increasing the positive impact on the post-buyout performance of the company.

In their study of UK LMBOs in 1990 (which was continued in 1992), Wright, Thompson and Robbie examined 31 UK LMBOs between 1982 and 1987 that were later floated on the stock market between 1984 and 1989. Their findings gave strong support to the view that ownership incentives are crucial in explaining the performance improvements in LMBOs. As an example, they found out that a 10 percent increase in management equity ownership would increase the excess return to total capital by approximately 25 percent. This evidence is further confirmed by the fact that the increase in value of the LMBO companies between LMBO and flotation was directly related to management's percentage of equity ownership. It was also recognised that the divisional managers' inside information could affect the extent of their participation in the LMBO i.e. the better the potential of the company is perceived by management, the more the management team commit themselves.

In 1997 Kevin Amess researched the effects of UK management buyouts on firm-level performance examining 99 management buyout companies from 1984 to 1994. The evidence found suggested that there were two types of buyout firms: Firstly, there were firms where buyouts acted as "shock-therapy" and many changes that took place had a one time effect inducing one-time improvements of value-added of up to 9 percent. Secondly, there were firms where buyouts caused large negative shift effects in value - however there were improvements in labour productivity of 17 percent and capital productivity of 3 percent. For these firms a buyout did not have short term effects but created a superior organisational structure as there were fundamental changes in the technical relationship between labour and capital as a result of managers adopting new working practices that have a longer term effect on productivity.

Completing the evidence found concerning the short term (up to three years) performance of LMBOs in the UK, the following studies were undertaken focusing on the longer term (up to five years) post-buyout performance of LMBOs.

2.2 Research on the long-term performance changes

The study of the Warwick Business School of 1989 examined the longer term performance (from four years up to seven years) of UK LMBOs across a range of industrial sectors. With respect to sales volume, the results found that an increasing portion of companies experienced improved sales volume in the fourth to seventh years after the buyout - both when compared to the previous financial performance of the company itself and the average growth in industry sales. Conversely, the proportion of companies showing improvements in profitability fell over the long term.

According to the authors, this development can be explained by the fact that in the short term perspective, the majority of management teams appear to concentrate on improving the profitability of the business by adopting cost-reduction measures, whereas in the longer term perspective further cost cutting measures have an increasingly marginal effect on the profit and in order to enlarge profits, high growth businesses look to increase their sales volume. On the basis of their results, the authors conclude that the overall longer term performance of the sample LMBO companies is worse than their short term performance and worse than the industry sector in which they are active, since the majority of companies fail to improve their ROCE ratio between the fourth and the seventh year after the buyout. Moreover, the proportion of companies showing improvement in the profit margin between the fourth and sixth year is little different from the industry average and in the seventh year is considerably worse. This findings reversed the results obtained for the LMBO company performance in the short to medium term suggesting that the LMBO is an effective motivational instrument for the short to medium term but not for the longer term.

A paper of Wright, Wilson and Robbie (1997) researched also the longer term effects of management buyouts on 158 buyout companies completed between 1983 and 1985. Here post buyout performance was examined for up to six years after the transaction. In the early years of the buyout the authors identified no significant differences in the return on total assets ratio. Here the assumption was confirmed that although actions were undertaken in order to lead to improved performance after the buyout it may take some time before this would exceed the average performance for the sector. In the years 3 to 5 years after the buyout evidence was found that buyouts on average performed better than comparable companies in the same industry both in the return on total assets and profit to employee ratios. In the sixth year after the buyout the difference of performance of buyout to non-buyout companies became significant.

Fewer significant differences were apparent in respect of short term liquidity ratios. Buyout and non buyout companies displayed acceptable liquidity levels and there were suggestions that buyout companies in their first two buyout years had lower liquidity ratios than non buyout companies, however from year 5 on buyout companies exceeded non buyout companies with respect of liquidity levels. The authors assumed that this pattern was consistent with the impact of tighter working capital control systems.

V. An overview of previous empirical research concerning post buyout performance of LMBO companies in Germany

The research on the post-buyout performance of German LMBO companies and therefore the availability of data is very limited due to the fact that a significant number of deals in Germany are shrouded in secrecy. However, on the basis of available data and empirical research of LMBO participants with sufficient data about the transactions they participated in, the following research has been completed on the short term post-buyout performance of LMBO companies in Germany.

In 1992, Martin Forst (1992) examined small to medium sized companies which were target of LMBO/LMBI transactions until 1991. Forst distinguishes here between LMBO/LMBIs from family-owned companies and from divestment of national and international groups. He found the sales development of the LMBO companies researched to be as follows:

LMBOs from family-owned companies:

- 54.2 percent of the sample companies exceeded 5 percent annual sales growth
- 50 percent of the sample companies exceeded 5 percent return on sales growth

LMBOs from spin-offs:

- 57.1 percent of the sample companies exceeded 5 percent sales growth
- 64.3 percent of the sample companies exceeded 5 percent return on sales growth

To sum up the evidence found by Forst's research, despite the differences in the motives, the company structure and equity structure of family-owned and spin-off companies, the average post-buyout development of LMBO companies from these two different sources is relatively similar.

The study of Matthias Gräper from 1993 researches 36 LMBOs from 1986 until 1989. Gräper examined sales volume and profit before taxes of the LMBO sample companies 3 years after the buyout in comparison to their pre-buyout performance. He also distinguishes between family-owned and divestment LMBOs in his examination of post-buyout performance. In family-owned LMBOs, the pre-buyout years sales growth averaged 9.7 percent, while average sales growth for the three post-buyout years reached 19.6 percent.

Compared to the sales growth of companies operating in the same industry, evidence suggests that the sales growth of LMBOs increased disproportionately to that in the respective industry. In the pre-buyout years, the average growth rate of profit before sales reached 10.2 percent, while average post-buyout growth rates for three consecutive years reached 31.5 percent. In divestment LMBOs, the pre-buyout years' sales growth averaged 4.7 percent, while average sales growth for the three post-buyout years reached 8.75 percent. Profit before sales in the pre-buyout years grew 12.8 percent compared to the average post-buyout growth rate of 35.5 percent. Based on the empirical evidence, Gräper concludes that LMBOs are to be regarded as positive for the further development of the company and that the LMBO structure leads to a more efficient use of the existing assets of the company.

In 1994, Vest researched LMBOs from divestment of national and international groups in Germany until 1991. With respect to the performance measure of these companies after the buyout, Vest examined post-buyout sales growth and liquidity development of LMBOs resulting from going concerns (15 cases) and turnarounds (11 cases). The evidence showed an average post-buyout sales growth of 59.6 percent for going concern LMBOs, and an average post-buyout sales growth of LMBOs resulting from turnarounds of 20.4 percent. According to Vest's research, the main effects on post-buyout sales came from restructuring measures implemented by the management and resulting, among other things, in a reduction of the existing work force. With respect to the development of the liquidity situation of the sample companies, LMBOs from going concerns and turnarounds experienced a significant increase of cash-flow in the first year and only slight increases in the following years.

LMBOs resulting from going concerns revealed a significant increase in the operating cash-flow in the first year after the buyout due to extraordinary depreciation following the transaction. The increase in cash-flow resulting from an increase in sales performance was insignificant due to an equally high increase in expenses. LMBOs resulting from turnarounds experienced significant increases in operating cash-flow in the first year after the buyout due to cost reductions especially in the area of salaries and wages.

In the context of the comparison of LMBO activity in the UK and German the following section will present a comparison of the results on short-term post-buyout performance in the UK and Germany.

VI. Comparison of short-term post-buyout performance of UK and German LMBO companies

The results on post-buyout performance of UK LMBOs presented in section IV of this part revealed that over 50 percent of the sample LMBO companies experienced significant improvements in profitability in terms of sales volume and pre-tax profit after the buyout. According to research of Wright and Coyne (1985), the most notable items with beneficial effect on profitability were industrial market factors which helped to improve results in 20 percent of the cases, but which had the reverse effect in 13.5 percent of the cases. The ability of LMBO managers to control overhead costs and increase productivity was very apparent in the research; there was also support that profit margins were squeezed in a number of cases.

The results of the research of German LMBOs presented in section V also provided evidence that a majority of the sample LMBO companies showed significant improvements in profitability in terms of sales volume and pre-tax profits after the buyout. In order to improve profitability, restructuring and reorganisation measures were implemented by the new managers/owners. Forst (1992) found evidence that especially in LMBOs resulting from divestment the respective managers/owners were highly motivated and introduced new measures to increase the return on sales ratio of the respective companies.

The research on the development of liquidity of UK LMBOs by Wright and Coyne in 1985 revealed that of the LMBO companies experiencing liquidity problems only 13.5 percent had problems after the buyout, whereas 46.9 percent showed no cash problems after the buyout. Research on post-buyout development with respect to liquidity in German LMBO companies provided evidence that all the companies examined experienced a significant increase in liquidity in the first year after the buyout due to the extraordinary effects of the LMBO structure. In the following years, the liquidity improved less significantly than before.

Summarising the evidence found by UK and German research, it is evident that the majority of UK and German LMBO companies experience a significant increase in profitability after the buyout. The most notable items with beneficial effect on the post-buyout profitability were the restructuring and reorganisation measures of the highly motivated management/owners as well as the ability to control overhead costs after the buyout. The majority of UK and German LMBO companies were also found to have increased their liquidity position after the transaction.

Comparison of short term post buy-out performance of UK and German LMBO companies

United Kingdom				Germany			
Period of research	Author and Date of research	Results concerning profitability	Results concerning liquidity	Period of research	Author and Date of research	Results concerning profitability	Results concerning liquidity
-1983	Wright and Coyne in 1985	Buyouts more than two years old: 50% of the companies showed substantial or slight growth. 25-30% of the companies showed fluctuating growth. 25% of the companies showed decline in growth. Buyouts less than two years old: 50% of the companies performed better than expected. 38% of the companies performed worse than expected.	46,9% of the companies showed no liquidity problems. 13,5% of the companies showed liquidity problems after the buyout 18% of the companies showed liquidity problems before and after the buyout	-1991	Forst in 1992	Family buyouts: 54,2% of the companies exceeded 5% sales growth. 64,3% of the companies exceeded 5% return on sales growth. Spin-off buyouts: 57,1% of the companies exceeded 5% sales growth. 50% of the companies exceeded 5% return on sales growth.	
1983-1985	Thompson, Wright et al in 1989	Development of post-buyout to pre-buyout sales: 36,8% substantially better 24,5% slightly better 20,9% the same 11,1% slightly worse 6,7% substantially worse Development of post-buyout to pre-buyout profit: 56%substantially better 12,7% slightly better 13,9% the same 8,4% slightly worse 9,0% substantially worse	Cash flow Management: More than 50% improved their cash flow 33% had liquidity problems after the buyout	1986-89	Gräper in 1993	Family buyout companies: Pre-buyout sales growth of 9,7%. Post buy-out sales growth 19,6%. Pre-buyout profit before tax growth rate of 10,2%. Post-buyout profit before tax growth rate of 31,5%. Spin-off companies: Pre-buyout sales growth of 4,7%. Post buyout sales growth of 8,75%. Pre- buyout profit before tax growth rate of 12,8%. Post-buyout profit before tax growth rate of 35,5%.	
1978-1985	Warwick Business School	50% improved performance in real turnover. 66% improved performance in pre-tax profits.		-1991	Vest in 1994	Research of spin-off buyouts	
1982-87	Wright, Thompson and Robbie in 1990 and 1992	Ownership incentives are mainly responsible for performance improvements in management buyouts.				Going concern LMBOs: Post buyout sales growth 59,6%.	Going concern LMBOs: Significant increase of cash flow in the first year, than only slight increase
1984-1994	Amess Kevin	LMBOs with shock therapy: Value added: 9.4% from year 1 on LMBOs with longer term effects: Labour productivity: 17% Capital productivity: 3%				Turnaround LMBOs: Post buyout sales growth 20,4%.	Turnaround LMBOs: Significant increase of cash flow in the first year,than only slight increase.

VII. Summary concerning the existing evidence about post-buyout performance of LMBO companies

All the evidence found, especially by US, UK and German researchers, with respect to the impact of L(M)BO transactions on post-buyout value and performance seem to point to the following two factors to explain the improvement in efficiency and profitability after the LMBO transaction. First, the reduction in income taxes outlined in the tax hypothesis of Lowenstein in 1985. In certain LMBO take-over models, depreciation and asset bases may increase and interest deductions may increase. In this context Lowenstein points out that one should not confuse the large financial gains (to shareholders) with real gains. To a large extent, they were tax generated. However, Schipper and Smith (1986) argue that considerable variability in the premiums paid to shareholders in leveraged buyouts cannot be explained by tax savings alone.

Another source of improved operating results are the reduced agency costs associated with conflicts between managers and shareholders over the availability of free cash-flow. Free cash-flow should be paid out to shareholders to maximise shareholder value, but managers prefer to retain control. Their participation in the equity of the target company increases management's efforts to invest in positive net present value projects or to pay out dividends to shareholders instead on wasting it on the inefficiency in the organisation. Therefore, the 'free cash-flow' hypothesis predicts improvements in performance following a leveraged management buyout due to management's stake in the target company and a reinforced incentive to increase company value.

Another factor in Jensen's 'agency cost' theory is the role of debt in encouraging organisational efficiency. In his research of 1986, Jensen states that the debt creation effectively binds managers to their promise to pay out future cash-flows. By issuing debt instead of stock, management's promise of a pay out of future cash-flow is more binding than a simple dividend increase. This gives debtors the right to take the firm into bankruptcy if they do not maintain their promise to service their debt obligations. Thus, the agency cost of free cash-flow is alleviated by reducing the cash-flow available for managers to spend. The 'debt bonding' theory predicts improvements in performance following a leveraged management buyout because of the control that debt exercises over agency costs.

Due to the above findings of researchers in the US, UK and Germany, it follows that the 'agency cost' theory (free cash-flow and debt bonding) is of significant importance with respect to improvements in performance of management induced leveraged buyouts. The following section will present the results of the empirical study concerning post-buyout performance of German LMBO companies under difficult economic conditions and will evaluate agency cost theory in light of the specific business environment in Germany.

VIII. Examination of post-buyout performance of German LMBO companies under difficult economic conditions from 1991-1994

In Germany, small- to medium-sized companies with sales of up to DM 100m and a staff of up to 500 employees form the important 'Mittelstand' which represents the majority of all German companies. In these 'Mittelstand' companies, the owners are still at the centre of all corporate activities. Therefore, they are very reluctant to delegate managerial decisions to managers in the second ranks and prefer to lead their company in a rather authoritarian way. If the owners are then forced to delegate some of their management tasks to managers due to expansion of the company, a conflict of interest emerges between the owners and the management as their agents. Therefore, in companies whose hierarchical structures still require the strict separation of ownership and management, a classic case of principal vs. agent conflict can arise resulting in increased agency costs. After management takes over the company, this conflict is resolved by uniting management and ownership in the new owner/managers and providing them with increased motivation (M & A Review, 1996). The advantage of eliminating principal/agent conflicts also plays an important role when a subsidiary is divested from a national or international group as an LMBO. Unprofitable subsidiaries are very often the result of inefficient group regulations preventing the subsidiary's management from reacting quickly to the demands of the market. With regard to investment decisions, owners and managers will always be confronted with different opinions based on their conflicting interests.

The following research will examine the effect of the elimination of principal/agent conflicts combined with the impact of debt in leveraged management buyouts on the performance of LMBO companies in a sound economic environment and whether these effects hold true in times of economic recession (from 1991 onwards).

2. Research

1. Steps of the Research

The following research has been divided as follows: Chapter 2 presents the reasons and goals of the research. Chapter 3 describes the research design including the tests employed to measure changes in performance, the variables used to compare performance and the statistical framework establishing that the findings are reasonable. Chapter 4 describes the results of the study, offers overall conclusions and gives recommendations for further research.

2. Reason and goal of the research

Empirical evidence outside the US and the UK about the intent and nature of LMBO transactions and especially about the performance of LMBO companies is limited in scale and scope. This is especially true for the transactions in Continental Europe. The following research analyses LMBO company performance in Germany, focusing on the post-buyout performance of LMBO companies under the difficult economic conditions between 1991 and 1994.

According to Palepu (1990), much of the public debate about leveraged finance transactions comes from the fear that the high level of leverage reduces the firm's ability to survive and compete in difficult economic situations. Palepu (1990) describes further the argument that the potential financial distress created by leveraged transactions could lead to lay-offs and a reduction of the going concern value of the firm. Although there is evidence on significant improvements in performance following a leveraged management buyout, this evidence is not sufficient to judge LMBO performance in economic downturns. Therefore, in order to fully understand effect of LMBOs on performance, the research here on recessionary LMBOs seeks to complete the existing evidence.

3. Data and research Design

3.1 Tests concerning the post buyout performance of LMBO companies in Germany under difficult economic conditions

This study compares the average performance of 30 LMBO companies from one year before the buyout and two years after the buyout. The year of buyout serves as a point of reference for the pre- and post-buyout performance.

The first set of tests measures the difference in the operating variables in the first two years after the buyout (years +1, +2) compared to the last year before the buyout (year -1). Adjustments to the accounting data used to calculate the performance variables are necessary due to the fact that new values are assigned to assets when the purchase price is allocated among the transferred assets. Comparability is achieved by adjusting post-buyout amortisation policies to conform to those used in the pre-buyout period.

The second set of tests examines the significance of changes in post-buyout performance compared to the changes in the respective industry in order to determine whether LMBO companies outperform their industry rivals.

3.2 The LMBO data base

The financial information needed for a study of LMBO performance is not publicly available, therefore the financial data was obtained from various institutional investors with the assurance that the sample companies would not be identified in the published descriptions or findings. The various institutions offered a sample of 30 companies that were involved in LMBOs between 1990 and 1994. In addition to data provided by institutional investors, questionnaires were sent out to 100 companies that underwent LMBOs transactions in the period under examination. In accordance with the German tendency to secrecy in such issues, many LMBO companies refused to give out unpublished financial data and response to the questionnaire was therefore poor.

3.3 Industrial distribution of sample LMBOs

Tables 1 and 2 show that the sectors represented tend to be mature and not involved in high tech industry. Such industries are less likely to have strong growth prospects but tend to generate high and stable cash-flow. As described by Jensen (1986), these industries are expected to have strong agency cost problems because of the prevalence free cash-flow.

Table 29: Industrial distribution of the sample LMBOs

Industry	Number of LMBO companies
Mechanical engineering	6
Metal-working	5
Wholesale distribution	5
Electrical and electronic	5
Paper, printing and publishing	3
Textiles	3
Services	1
Construction	1
Wood-processing	1
Total	30

3.4 Performance measure/variables

The objective of this study is to measure the influence of the LMBO structure on the financial performance of German LMBO companies with respect to pre- and post-buyout performance as well as to compare post-buyout performance to the corresponding industry performance. The period under examination falls between 1991 and 1994. Here, the analysis focuses on the following variables:

- Net Sales
Net sales is an important indicator of overall volume growth and competitive performance.
- Operating income
Operating income is the key operational performance indicator of a corporation. Operating income (before extraordinary depreciation) equals net sales less cost of goods sold and selling, general and administrative expenses after depreciation, and amortisation.
- Operating cash-flow
Operating cash-flow is the key indicator for the corporation's ability to generate cash. Operating cash-flow equals operating income before depreciation. Operating cash-flow measures the cash generated by the company before interest and taxes.

All variables are measured before taxes, extraordinary depreciation and interest expenses due to the fact that specific LMBO take-over models have a large effect on taxes, interests and depreciation. Managerial operating decisions, not taxes or financial decisions, affect the variables measured in this research.

3.5 Hypotheses

This research will present the following hypotheses on the post-buyout development of firms undergoing leveraged management buyout transactions in difficult economic situations. Jensen's 'agency cost' and 'debt bonding' hypotheses described in chapter 2.7 suggests an improvement in operating results in the post-buyout years as well as better performance in the post-buyout years compared to the industry average.

The hypotheses that there is no difference between the average values for the two members of the pair in the population are as follows:

H1: Firms undergoing leveraged management buyouts will have the same levels of sales after the buyout as before the buyout.

or

Sales before (year -1) = Sales after (year +1)

Sales before (year -1) = Sales after (year +2)

Sales before (year -1) = Average sales after (year +1 +2/2)

H2: Firms undergoing leveraged management buyouts will have the same level of sales growth rates as their respective industry rivals.

or

Average sales growth rate after (+1+2/2) = Industry average sales growth rate

H3: Firms undergoing leveraged management buyouts will have the same levels of operating income after the buyout as before the buyout.

or

Operating income before (year -1) = Operating income after (year +1)

Operating income before (year -1) = Operating income after (year +2)

Operating income before (year -1) = Average operating income after (year +1+2/2)

H4: Firms undergoing leveraged management buyouts will have the same levels of operating income growth after the buyout as their industry rivals.

or

Average op. income after $(+1+2/2)$ = Industry average op. income growth rate

H5: Firms undergoing leveraged management buyouts will have the same levels of operating cash-flow after the buyout as before the buyout.

or

Op. cash-flow before (year -1) = Op. Cash-flow after (year +1)

Op. cash-flow before (year -1) = Op. cash-flow after (year +2)

Op. cash-flow before (year -1) = Average op. cash-flow after $(\text{year} +1+2/2)$

H6: Firms undergoing leveraged management buyouts will have the same levels of operating cash-flow growth after the buyout as their industry rivals.

or

Average op. CF growth rate after $(+1+2/2)$ = Average op. CF growth rate industry

3.6 Statistical framework

In order to test the hypotheses about the performance changes of leveraged management buyouts it is necessary to choose an appropriate statistical framework. Statistical testing for this part of the analysis is used to reject or accept the null hypothesis that the post-buyout value of a particular operational indicator, such as sales turnover, operating income and operating cash-flow in comparison to pre-buyout values and industry adjusted values is significantly different from zero. The statistical tests for this segment of the paper are univariate paired t-tests and the one-way anova test.

4. Empirical results and interpretations

4.1 Results

4.1.1 Performance of the mean operating variables

The following table presents the development in sales performance for the 30 sample LMBO companies one year prior to and two years after the buyout. In the pre-buyout year (-1), the average sales performance declined to 96.7 percent whereas post-buyout sales performance reached 107.5 percent for the first year and 113.3 percent for the second year after the buyout. The average post-buyout sales growth was 110.4 percent. Operating income was at 91.0 percent the year prior to the buyout (-1), at 85.1 percent the first year after the buyout (+1) and increased to 101.9 percent the second post-buyout year. The average post-buyout operating income level was 93.5 percent. The mean operating cash-flow performance one year before the buyout (-1) reached 93.3 percent compared to the first and second buyout years (+1,+2) with operating cash-flow levels of 104.5 percent and 133.5 percent respectively. The average post-buyout operating cash-flow level reached 119 percent.

Table 30: Development of pre- to post-buyout performance

Year (in percent)	-1	0	+1	+2	Average
Sales	96.7	100	107.5	113.3	110.4
Operating income	91.9	100	85.1	101.9	93.5
Operating cash-flow	93.3	100	104.5	133.5	119.0

Table 30 shows that sales performance in the post-buyout years +1 and +2 with respect to buyout year 0 increased by 7.5 percent and 13.3 percent, whereas pre-buyout sales performance declined by 3.3 percent. The average post-buyout sales performance increased by 10.4 percent. Operating income shows a decline in the last pre-buyout year (-1) of - 8.1 percent as well as in the first post-buyout year (+1) of -14.9 percent. In the second post-buyout year, operating income increased by 1.9 percent. The average operating income for the two post-buyout years declined by - 6.5 percent. Operating cash-flow one year before the buyout (-1) declined by - 6.7 percent. In the two years after the buyout (+1.+2), growth rates ranged from + 4.5 percent in the first year and +33.5 percent in the second year. The average post-buyout growth rate was 19.0 percent.

Table 31: Development of performance growth rates in the pre- and post-buyout years

Year (in percent)	-1 to 0	1 to 0	2 to 0	-1/average 1+2
Sales	-3.3	7.5	13.3	10.4
Operating income	-8.1	-14.9	+1.9	-6.5
Operating cash-flow	-6.7	-4.5	+33.5	+19.0

Table 32 presents one series of the univariate paired two-tail t-tests used to determine the significance of change in the variables sales, operating income and operating cash-flow before and after the buyout. Statistical testing for this part of the analysis is to reject or accept the null hypothesis that the post-buyout performance equals the pre-buyout performance.

Sales one year before the buyout (-1) and one year after the buyout (+1) show a significant difference with a probability of $p = 0.030$ and a highly significant difference to the second year after the buyout (+2) with a probability of $p = 0.011$. The difference in sales from one year before (-1) to the average of the two years after the buyout is highly significant with a probability of $p = 0.014$.

The difference in operating income between the last year before the buyout (-1) and the first year after the buyout (+1) as well as between the last year before the buyout (-1) and the second year after the buyout is insignificant at probability levels of $p = 0.581$ and $p = 0.359$, respectively. The difference of operating income between the year before the buyout (-1) and the average post-buyout years (+1+2/2) is highly insignificant at a probability level of $p = 0.858$.

The difference of operating cash-flow in the pre-buyout year -1 and the post-buyout year +1 and +2 is insignificant at probability levels of $p = 0.597$ and 0.110 , respectively. The difference between pre-buyout year -1 and the average post-buyout years +1+2/2 is insignificant at a probability level of $p = 0.247$.

Table 32: Paired samples t-test: Comparison of the pre and post-buyout mean results of the 30 sample companies

Variable	t-value	2-tail probability
Sales 1 (pair = -1/1)	2.282	0.030
Sales 2 (pair = -1/2)	2.726	0.011
Sales 3 (pair = -1/average)	2.605	0.014
Operating income (pair = -1/1)	- 0.559	0.581
Operating income (pair = -1/2)	0.931	0.359
Operating income (pair = -1/+1+2/2)	0.181	0.858
Operating cash-flow 1(-1/1)	0.534	0.597
Operating cash-flow 2 (-1/2)	1.649	0.110
Operating cash-flow 3 (-1/+1+2 average)	1.182	0.247

Table 33 presents the average post-buyout sales growth rate of the LMBO sample at 10.4 percent in comparison to the average decline in sales of the respective industries amounting to - 0.056 percent. The average post-buyout operating income of the LMBO sample declined by -6.5 percent in comparison to the average decline in operating income for the respective industries at - 0.0610 percent. The average post-buyout operating cash-flow growth rate of the LMBO sample is 19.0 percent compared to the average decline in operating cash-flow of the respective industry at -0.320 percent .

Table 33: Comparison of average post-buyout growth rates to the industry average

Average post LMBO sales growth	+10.4 %
Average industry sales growth	-0.056 %
Average post LMBO op.income growth rate	-6.500 %
Average op. income industry growth rate	-0.610 %
Average post LMBO operating cash-flow growth rate	+19.00 %
Average industry operating cash-flow growth rate	-0.320 %

Table 34 presents the result of the one sample t-test with respect to post-buyout sales, operating income and operating cash-flow growth rates and the average industry growth rates. The results show that the difference between LMBO sales growth rate and the industry sales growth rate is significant at a probability level of $p = 0.029$. The difference between LMBO income growth rate and the industry average income growth rate is highly insignificant at a probability level of $p = 0.663$. It also shows the result with respect to LMBO operating cash-flow growth and the industry average. The difference here is insignificant at a probability level of $p = 0.316$.

Table 34 : One sample t-test: Average post-buyout sales growth rate to the industry average

(Mean)	t-value	2-tail probability
LMBO sales growth / Industry average	2.317	0.029
LMBO op.income growth / Ind.average	-0.441	0.663
LMBO op.cash-flow growth / Ind.average	1.020	0.316

4.1.2 One-way anova analysis of variance

One-way anova tests are used to determine significance. Tests using the three variables sales, operating income and operating cash-flow as shown in table reflect the major findings of the study obtained by the t-test. The changes in performance are significant here as well for the sales variable at a probability level of 0.011. Furthermore, the findings on operating income in pre- to post-buyout years was confirmed insignificant at a probability level of 0.918. The changes of operating cash-flow in the pre- to post-buyout years are insignificant at a probability level of 0.993.

Table 35: Results of one-way analysis of variance - significance of changes of pre- to post buyout performance of 30 leveraged buyout companies

Variables	F	Significance
Sales	6.986	0.011
Operating income	0.468	0.918
Operating cash-flow	0.119	0.993

Based on the test results described above, the following hypotheses can be rejected or not rejected:

- | | | |
|-----|---|--------------|
| H1: | Sales before (year -1) = Sales after (year +1) | rejected |
| | Sales before (year -1) = Sales after (year +2) | rejected |
| | Sales before (year -1) = Average sales after (year +1+2/2) | rejected |
| H2: | Average Sales growth-rate after (+1+2/2) = Average growth-rate industry rejected | |
| H3: | Operating income before (year -1) = Operating income after (+1) | not rejected |
| | Operating income before (year -1) = Operating income after (+2) | not rejected |
| | Operating income before (year -1) = Av. operating income after | not rejected |
| H4: | Av. LMBO op. income growth-rate after = Av.Op. income industry not rejected | |
| H5: | Operating CF before (year -1) = Operating CF after (+1) | not rejected |
| | Operating CF before (year -1) = Operating CF after (+2) | not rejected |
| | Operating CF before (year -1) = Av. operating CF after | not rejected |
| H6: | Av. LMBO op. CF growth-rate after = Av.Op. CF industry not rejected | |

4.2 Interpretation of the results

4.2.1 Sales

4.2.1.1 Results of the LMBO sample companies

Taking the average sales performance of LMBO companies under examination, sales and sales growth are considerably higher in the post-buyout years +1 and +2 and in the average post-buyout years +1+2/2 than in the pre-buyout year -1. In comparison to the industry average sales growth, the average post-buyout sales growth of the LMBO sample companies exceed that of their respective industry rivals considerably. On the assumption that LMBO businesses seek to grow in volume, sales improvement indicates financial success on first sight.

4.2.2.2 Statistical results

Results of the t-tests in chapter 4.1 show a significant increase in sales volume and sales growth for the post-buyout years +1 and +2 and for the average post-buyout years +1+2/2 over the pre-buyout year -1. Sales increase in the sample companies and are higher than other companies in the same industries. The reasons for this difference appear to be the result of all the hypothetical factors in the 'agency cost' and 'debt bonding' theories for improvement in performance.

4.2.2 Operating income

4.2.2.1 Results of the LMBO sample companies

Examining the average operating income performance of LMBO companies, operating income and operating income growth in the first buyout year +1 is considerably below those of the pre-buyout year -1. In the second post-buyout year operating income and operating income growth slightly exceed those of the pre-buyout year. However, the average post-buyout operating income performance remains below that of the pre-buyout year -1. In comparison to the industry average operating income growth, the LMBO average post-buyout operating income growth is below that of the respective industry average. The reason for this result might be due to atypical accounting measures like increased provision for lay-offs, settlements or restructuring which have to be implemented in the first years after the buyout combined with the fact that improved volume was achieved on the basis of declining operating margins.

4.2.2.2 Statistical results

The results of the t-tests in chapter 4.2 indicate that there is no significant difference between operating income and operating income growth for the post-buyout years +1, +2 and the average of the post-buyout years +1+2/2 over the pre-buyout year -1. Therefore, the hypothesis that LMBOs result in a better operating income after the buyout can not be sustained. With regard to the comparison of post-buyout performance to average industry performance, the hypothesis that LMBOs outperform their respective industry rivals can also not be sustained.

4.2.3 Operating cash-flow

4.2.3.1 Results of the LMBO sample companies

The results for operating cash-flow suggest that the leveraged management buyout companies generate higher operating cash-flows after the buyout and that they generate higher operating cash-flows than their respective industry rivals.

Operating cash-flow and operating cash-flow growth in the sample 30 LMBO companies in the first year after the buyout are slightly higher than before the buyout and are considerably higher in the second year after the buyout. Following the increase in sales performance after the buyout, LMBO sample companies could not maintain this growth rate due to the increased operating costs which slightly mitigated the success of sales growth. However, in the second year after the buyout the combination of increased sales volume and the effect of cost cutting measures which were implemented after the buyout showed their full impact in a significantly higher cash-flow volume. In comparison to the industry average operating cash-flow growth, the LMBO average post-buyout operating cash-flow growth exceeded that of the respective industries.

4.2.3.2 Statistical results

The results of the t-tests in chapter 4.3 suggest that there is no significant difference between operating cash-flow and operating cash-flow growth for the post-buyout years +1 and +2 and the average of post-buyout years $+1+2/2$ over the pre-buyout year -1. Therefore, the hypothesis that leveraged management buyouts lead to better operating cash-flows after the buyout in economically difficult times can not be sustained.

4.3 Conclusion

4.3.1 Results of the LMBO sample companies

This study presents evidence on the post-buyout operating performance of 30 leveraged management buyouts completed between 1990 and 1994. After the buyout, these 30 companies experienced a considerable increase in sales and operating cash-flow which - according to anecdotal evidence presented in section IX - were due to considerable cost cutting and rationalisation measures combined with the expansion of their sales activities. They also exceeded their industry rivals in sales and operating cash-flow rates. Operational income, in contrast, declined in the first year after the buyout and increased only slightly in the second year after the buyout. Possible reasons for this may be the increase in operating expenses following the sales-growth and the additional provisions necessary for restructuring measures in the first year after the buyout. This reasoning is supported by the fact that the post-buyout operational cash-flow exceeded the pre-buyout operational cash-flow considerably indicating that the decline in post-buyout operating income must result from atypical non-cash related restructuring measures after the buyout.

Comparing the general improvement of post-buyout operating performance to pre-buyout operating performance of LMBO sample companies and putting this into relation to the general operating performance of the industry average, the improvement has to be interpreted as partly due to better management and to leverage according to Jensen's 'agency cost' theory. According to anecdotal evidence which will be presented in the following section, the entrepreneurial aspect also played a decisive role where owners/managers observed and tried to exploit opportunities for gain. Although existing evidence of earlier research also suggest that income tax savings do play a role in the success of leveraged management buyouts the chosen variables in this research reflect strong post-buyout performance without tax effects. Sales and operating cash-flows are factors for operating performance and their increase reflect real gains and not tax generated gains.

The reason for the improvement in performance in LMBO companies was already described in sections II and III (theoretical basis and review of existing research) of this part. Agency cost reduction, debt bonding and the entrepreneurial aspect seem to provide an overall explanation. Managers/owners are alert to opportunities that arise and react in a manner that will create wealth for their respective companies. Interviews with owners/managers of several of the examined LMBO companies provided further anecdotal evidence that besides the entrepreneurial aspect the goal of debt reduction provided a strong incentive for the owners/managers and the investors to improve performance and high debt service requirements eliminated the discussion about the use of free cash-flows, one source of agency cost problems cited by Jensen (1986). The results concerning post LMBO performance of the LMBO sample companies confirms the results of former studies by Forst, Graeper and Vest suggesting that an LMBO is an efficient motivational tool to improve the company's operational performance after the buyout.

4.3.2 Statistical results

Despite the positive results of the LMBO sample companies, statistical evidence cannot provide sufficient evidence for the general assumption that post-buyout performance is better than pre-buyout performance for all LMBOs in times of economic recession. With the exception of sales performance which shows significant difference between the pre- and the post-buyout levels the difference in operating income and operating cash-flow is not statistically significant in order to reject the hypothesis that post-buyout performance exceeds pre-buyout performance for all LMBOs in economically difficult times.

4.4 Limitations of the research

It was recognised that the research by the way employed to select the LMBO data, did not necessarily represent the general post-buyout performance of LMBO companies under difficult economic conditions. A bias could have been introduced from the relative numbers of companies in the sample from particular industry sectors being out of proportion to their occurrence in reality.

However the greatest limitation to the research was due to the German habit of secrecy which prevented the LMBO sample companies to reveal company data about the operational performance of the LMBO company. Only through the assistance and the support of private equity investors who were willing to provide to a limited extent company data on an anonymous basis could this research be completed. The research of LMBO company performance in Germany is generally further hindered due to the fact that former company owners - mostly owners of small to medium sized companies - include a clause in the sales contract which prevents investors and financiers to publish the LMBO transaction itself or reveal details of the financing. This development is based on the status of many owners/managers of small to medium sized companies in Germany to whom the status of being a local employer is as important as the financial rewards of the ownership and to whom the idea of selling in general is hard to accept.

Here much more work has to be done in order to make LMBO transactions more known to the German public - especially among the German Mittelstand - which might lead to more positive publicity for LMBOs in Germany and to more transparency of the LMBO market according to the role model in the UK.

4.5 Recommendations for further research

4.5.1 Long-term performance of LMBOs in Germany

Existing academic research documents impressive performance improvements after the LMBO in comparison to the pre-buyout performance under favourable economic conditions in Germany. Further research is needed in order to examine whether the LMBO structure is a beneficial organisational form in the long term or if it only provides short term improvement in performance due to short term restructuring measures. Therefore further research is needed in order to evaluate the long-term performance (4-7 years) of LMBO companies in Germany.

4.5.2 Reasons for LMBO company failures in Germany

Much of the reluctance about LMBO transactions come from the fear that the high leverage levels of LMBOs reduce the firm's ability to survive in a growing competitive economic environment. Research is therefore needed to examine the factors leading to the bankruptcy of LMBO companies and to whether the LMBO structure itself or the changing economic environment was responsible for collapse of the company.

4.5.3 Why do LMBO companies in Germany go public after the LMBO ?

Based on the evidence on the short term performance of LMBOs are regarded as an optimal organisational form suggesting that the LMBO structure significantly improves post-buyout operational performance. Therefore, if the LMBO structure is beneficial in terms of performance research is needed to examine the question why LMBO companies go public after the LMBO transaction. The research should focus on the following questions:

- Why do some German LMBO companies go public after the buyout and others not?
- Is the performance increase sustainable after the German LMBO company has gone public?

The following section will present anecdotal evidence form interviews with owners/managers of several of the researched LMBO companies. Due to the fact that LMBO transactions in Germany are surrounded by the wish for secrecy and confidentiality from the side of the vendors and very often also from the financial investors, it was very difficult in the context of the empirical research to obtain a complete set of company data for the examined LMBO sample companies. The following interviews had therefore the goal to give additional background for the motives and incentives for the LMBO transaction and to obtain complementary information with respect to the operational development of the LMBO company.

IX. Case studies

1. Wallace & Thiernan, 1989/1990

1.1 Company background

Wallace & Thiernan was founded in 1923 in Belleville, New Jersey by Charles Wallace and Martin Thiernan. Wallace & Thiernan was formed to manufacture chlorination equipment for the disinfection of drinking water. The company remained a privately held corporation until 1969 when it was acquired by the Philadelphia based Pennwalt Corporation, a publicly held company traded on the New York Stock Exchange.

Wallace & Thiernan grew during that period of time to become the world-wide leading manufacturer and distributor of water and wastewater process treatment equipment. It had manufacturing facilities located in the US, England, Germany and Austria, Mexico, Brazil and Canada. In 1989, the company employed 1.688 employees of which 909 were employed by the US subsidiary, 425 by the UK subsidiary, 235 by the German subsidiary and 119 at other locations.

1.2 Company owners before the buyout

Before the buyout Wallace & Thiernan was owned 100% by the US corporation Pennwalt Inc.

1.3 Market position of the company

Wallace & Thiernan was a market leader for chlorination devices for the disinfection of drinking water. Before the LMBO the company held 35 percent market share in the US, 80 percent in the UK and 65 percent in Germany.

1.3.1 Market position in the US

Since 1954 Wallace & Thiernan was under supervision by the US Anti-Trust Commission. As a consequence, the company was not able to expand their activities on the market to increase market share as management would have wished. However, after deliberation with their lawyers, management was convinced that the company would be released from the strict conditions of the Anti-Trust Commission. Total or even partial liberation from these conditions would have increased Wallace & Thiernan's potential on the US market.

Wallace & Thiernan's management also expected that their dosage systems which replaced traditional chlorodioxide systems would experience an increase in demand in the future. Wallace and Thiernan had observed a similar development in their German operations.

Orders from the communities for disinfection systems of drinking and waste water increased the company's market share from 32 percent to 35 percent between 1983 and 1985. Due to amendments to the Safe Drinking Water Act in 1986, management expected an increase in the orders for water treatment facilities and consequently predicted a 5 percent increase in market share in this area. Market share in the industrial sector was estimated to increase from 12 to 15 percent.

1.3.2 Market position in the UK

In the treatment of drinking water, the UK management set W & T's market share in the UK at approximately 80 percent. Although their activities in waste water treatment was insignificant at that time, management projected that this market segment would increase in importance in the time to come.

1.3.3 Market position in Germany

55 percent of Wallace & Thiernan's sales in Germany originated on the domestic market, while 45 percent were derived on the export market. According to German management, their market share stood at approximately 65 percent in the treatment of water and waste water and controlled approximately 45 percent of the market for precision measuring instruments.

1.4 Marketing concept and sales

1.4.1 Wallace & Thiernan US

In the US, Wallace & Thiernan used a national network of distributors in addition to their own sales organisation which accounted for 52 percent of turnover. Their internal sales organisation worked with 8 regional and 13 sector-specific offices. As a whole, Wallace & Thiernan worked with three different distribution networks.

- The first distribution network included twenty-five partners for the water and waste water business. Mainly smaller chlorination instruments and dosage pumps were sold through this network.
- The second distribution network of thirty partners was responsible for the measuring instruments product line. These products operated on a growing market and accounted for 10 percent of their total turnover.
- The third distribution network handled the sale of precision instruments. Wallace & Thiernen had 15 agents in this area. This product line represented 9 percent of total turnover.

Wallace & Thiernan's main target market was the water and waste water treatment facilities. In this target market sales to the public sector amounted to 61 percent and those to industrial clients to 15 percent.

The export markets Australia, Canada, Mexico and Brazil were handled by subsidiaries of Wallace & Thiernan US.

1.4.2 Wallace & Thiernan UK

For over sixty years Wallace & Thiernan had their own representatives in the UK and they sold essentially the same products as in the US. The domestic market was exclusively handled by Wallace & Thiernan employees and their key targets were suppliers of drinking water and electricity.

The export markets Scandinavia, Spain, Portugal, Poland, Russia and the Middle East were handled by Wallace & Thiernan UK.

1.4.3 Wallace & Thiernan Germany

Wallace & Thiernan Germany operated their own sales organisation in Germany with the exception of Berlin. An additional agent was responsible for the Berlin and Former East German markets.

Germany's export markets were handled by further agents and consisted of the countries of the European Community (excluding Spain and Portugal), Austria and Switzerland, as well as the Comecon countries (excluding Poland and Russia).

1.5 Performance of Wallace & Thiernan before the LMBO

Wallace & Thiernan grew modestly in the years prior to the buyout. While the sales volume in the US subsidiary remained stable during the pre-buyout years, the UK and German divisions experienced a significant increase in sales, the Canadian, Brazilian, Mexican and Australian subsidiaries' sales were relatively flat. Before the buyout the group achieved an average sales growth of 5 percent and EBIT developed between -44% and +85% as presented in the following table.

The following figures represent the EBIT-performance for the Wallace & Thiernan operations before the buyout:

in \$m	1985	1986	1987	1988
US	0,1	-1,2	-1,1	-3,5
UK	1,5	1,7	1,8	1,7
Germany	1,7	2,4	4,0	3,5
Others	0,9	1,0	2,5	2,3
Total	4,2	3,9	7,2	4,0

1.6 Management of Wallace & Thiernan

1.6.1 Management in Germany

Mr. Detlev Christ, the company chairman, led the German Wallace & Thiernen operations for 20 years. Middle management was responsible for the areas of finance, accounting, order processing and production and development. The average age of the management staff at the time of the buyout was around 45.

1.6.2 Management in the US

Wallace & Thiernan's US operations were led by Mr. Chet Ross, who held both the title of vice president and general manager. Mr. Ross had taken charge of Wallace & Thiernan US in the Spring of 1988 after Pennwalt decided to replace the existing management team. The other vice presidents of engineering and production averaged about 41 to 45 years of age and had acquired considerable experience in the company.

1.6.3 Management in the UK

Mr. Frank Smith presided Wallace & Thiernan's UK operations as managing director and had held this position for two years. In the years before Mr. Smith had already managed another Pennwalt UK division. A total of five directors reported to Mr. Smith in the areas of marketing, engineering, administration, production and finance. The age of the middle management staff ranged from 45 to 61 years of age.

1.7 The LMBO

In the middle of the 1980s, the managing director of Wallace & Thiernan's German operations, Mr. Detlev Christ, was the first to recognise the group as an ideal target for an LMBO transaction with its strong operational performance and its ability to generate a strong cash-flow. This line of thought was reinforced by rumours about Pennwalt's strategic deliberations to return to its core business and to divest all non-core activities - among those the activities of Wallace and Thiernan.

Encouraged by the divestment deliberations of the Pennwalt management Mr. Christ approached Pennwalt's chairman with the proposal that W & T be taken over in a leveraged management buyout transaction. In the meantime, Pennwalt had decided to divest the subsidiary as a part of a comprehensive defensive plan to fend off a hostile takeover bid for 100 percent of Pennwalt by the LBO group Centaur Partners. As a reaction to this in the fall of 1988, Mr. Christ proposed an LMBO transaction to Deutsche Beteiligungsgesellschaft mbH (DBG) which was supposed to be the equity investor in this transaction. Concurrently the head of Wallace & Thiernan's US subsidiary had independently approached Allsop Venture Partners to participate in the LMBO of the Wallace & Thiernan group.

However, instead of competing for the LMBO for Wallace & Thiernan the two groups agreed that they would submit a joint bid to Goldman Sachs, the investment bankers representing Pennwalt's interests. The German LMBO team with DBG as equity investors decided that the transaction should be let out of Wallace & Thiernan's US headquarters and brought in DBG's US joint venture partners, Harvest Ventures.

Due to the fact that also the UK subsidiary played an important role in the Wallace & Thiernan group the deal was further syndicated to ECI Ventures to London in order to provide additional capability to help evaluate and monitor the UK operation. An agreement was reached between the management, its financial sponsors and Pennwalt to buy Wallace & Thiernan in 1989, which was prior to Pennwalt's agreement to be acquired by a third party, Societe Nationale Elf Aquitaine of France.

1.8 The LMBO team

The LMBO- team of Wallace & Thiernan consisted of the following persons:

The general manager of the German subsidiary: Mr. Detlev Christ

The vice president and general manager of the US subsidiary Mr. Chet Ross.

1.9 The structure of the LMBO

From the beginning the investment group realised that they would have to think about accounting and tax issues in a world-wide context in structuring the transaction. Therefore, from the beginning they retained an international accounting firm, Coopers & Lybrandt, which co-ordinated those issues out of its New York office. Harvest and Allsop decided to finance the transaction with about \$5m each in equity (including preferred stock) and \$50m in debt.

The LMBO team overfunded the deal to provide working capital and a “cushion” for growth and contingencies for the target company. Standard Chartered Bank of the UK provided the senior debt in dollars, Deutsche marks and pounds sterling.

Purchase price: \$44m
Working capital: \$16m

The equity/debt structure of the LMBO was as follows:

Equity (10 million dollars):
3,0 million dollars Common Stock
5,2 million dollars Preferred Stock
1,8 million dollars Convertible Preferred Stock

The distribution of equity (10 million dollars) of the transaction among the LMBO-participants was as follows:

	Management	Allsop	Harvest	ECI	DGB	Total
(in million dollars)						
Common Stock	0,300	1,350	0,450	0,450	0,450	3,000
Preferred Stock		2,600	0,867	0,867	0,867	5,200
Conv.pref. Stock		0,900	0,300	0,300	0,300	1,800
Total	0,300	4,850	1,617	1,617	1,617	10,000

Furthermore, the management obtained a stock option which could have been exercised within five years of the transaction (after execution of the stock option and the convertible preferred stock the management could have retained 25 percent equity).

Debt (50 million dollars)
Standard Chartered Bank of the UK provided the senior debt in dollars, Deutsche marks and pound sterling. The construction of the collateral required by Standard Chartered Bank was unusually complicated, requiring cross-collateral guarantees on the three currency borrowing in the form of mortgages and other securities from the operations in Australia, Canada, Mexico and Brazil. It also required cross-collateral guarantees between the US, German and UK units.

The multi-currency loan made the deal very vulnerable to foreign exchange risks. The investment group therefore planned to hedge the exchange risk after closing. However, in the week prior to the closing, the dollar soared, making the acquisition about \$2m more expensive in Deutsche marks and pounds at the closing.

The investors had considered hedging prior to the closing but it would have cost the deal \$500,000 up-front additional costs. The group chose not to hedge up-front partly because the transaction costs already exceeded \$4m of which only a part were due at closing. At the initial phase the investment group had to risk \$2,5m up-front for the legal, accounting and valuation expenses.

1.10 Value creation through the LMBO

The investors Harvest Ventures and Allsop saw several ways to create value within the business. About half of the division's USD 110m in annual sales came from the US, while Germany and the UK generated about USD 20m in revenue each. The balance came about equally from Australia, Canada, Mexico and Brazil. Although Wallace and Thiernan was profitable overall, its US division wasn't. But the investors knew that a new general manager, whom they had since recruited, could turn it around. Although having a six-month backlog of orders, the division's sales were healthy. According to Mr. Maddox, general partner of Allsop, it was a logistical and manufacturing problem.

In summary, the turnaround concept of Wallace & Thiernan US comprised the following measures:

- Reduction of staff
- Reinforcement of the management
- Improvement of the production planning
- Improvement of the controlling systems

The investors also knew that Wallace & Thiernan, with sales representatives world-wide, was well-positioned to take advantage of the large and developing market for water-treatment facilities outside the US. In order to turn around the loss making operations in the US, the newly recruited general manager focused on transferring the best practices of the highly profitable German operation to the US, implementing efficient manufacturing techniques and installing a just-in-time manufacturing system.

1.11 Performance of the company after the LMBO

At the time of the LMBO the non-US operations were producing profits of about \$7 million annually. Whereas the US operation was incurring losses of \$5 million annually. Over a two year period, sales on a world-wide basis grew from \$110 million to \$121 million and operating profits outside the US grew from \$7 million to \$13 million, while operating profits in the US were \$4 million contrasted to the operating losses of \$4 million prior to the LMBO. These operating earnings produced considerable cash flow which provided for substantial debt reduction.

The development and the value creation of the Wallace & Thiernan group can be best illustrated by the following figures:

(in 000 USD)	1989	1990	1991
Sales	71.368	121.443	135.223
EBIT	6.337	13.804	15.804
Income/Loss	1.954	6.507	7.021

1.12 Exit

As the result of the improvement of operating earnings on the world-wide basis to 13 million dollars after two years of ownership, the company was approached by North West Water Plc. of the UK, a major customer of Wallace & Thiernan, with an offer to buy the company for 130 million dollars. The company accepted this pre-empted offer and was sold approximately two and one-half years after the date of the original acquisition resulting in an extraordinary return on the equity invested for both the financial investor and the management.

2. Georgsmarienhütte

2.1 Company background

The Georgsmarienhütte was founded in 1856 south of Osnabrück among the coal and iron core mines of this region. The company was named after the last ruler of the Hannover kingdom, King Georg, and his wife, Queen Maria. In 1923 the company lost its status as independent company and was acquired by the Kloeckner group. From 1988 to 1991 the company was conducted by Mr. Jürgen Großmann, one of the youngest board members of the mother company, the Kloeckner group.

2.2 Company owners before the buyout

Before the buyout the company was owned to 100% by the German corporation Kloeckner AG.

2.3 The products of the company

Georgsmarienhütte produces high-quality steel. The most important sales market for the company is Germany at 90 percent of all sales. Their customers include the automobile industry, forges, and the manufacturers of machines, pipes and screw.

2.4 Performance of the company before the LMBO

The sales performance of the former Kloeckner subsidiary Georgsmarienhütte had to experience a slight decline in the two years prior to the buyout due to the difficult economic environment in the area of steel production in Germany. New products and a transfer to new technologies were necessary in order to keep the company competitive in a declining economic environment which suffered from the reduction of state subsidies. However, although sales volume declined only marginally in this period before the buyout, the operating profit declined significantly due to disproportionate expenses for wages and salaries as well as the high intercompany compensation costs the mother company charged to its subsidiary.

The performance of the company before the buyout in percent in relation to the buyout year (100%) was as follows:

in 000 DM	1991/92	1992/93
Sales	133%	100%
EBIT	128%	100%
Income/Loss	-102%	- 100%

2.5 The LMBO team

The LMBO team of Georgsmarienhütte GmbH consisted of the following persons:

- Dr. Großmann, former board member of Kloeckner Werke AG, 75 percent
- Druecker & Co. GmbH, Financial consulting company, Frankfurt, 25 percent

The purchase price of the company was only symbolic in the amount of DM 2 due to the overindebtedness of the company at the time of the purchase. The financing for the restructuring and the necessary investments were made by the Nordische Landesbank.

2.6 The LMBO

Since several years the parent company of the Georgsmarienhütte, Kloeckner Werke AG, experienced heavy losses due to the difficult situation in the German steel industry which forced them finally to enter into composition proceedings in 1993. One of the first measures which the heavy indebted Kloeckner group had to undertake was to divest its heavy loss-making subsidiary Georgsmarienhütte which at that time was managed by one of Kloeckner's youngest board members, Dr. Jürgen Großmann.

Großmann was described as one of those young managers, which succeeded in making a fast and successful career without losing touch to the ground. Großmann, who made his high-school exam with best grades, accomplished a masters in steel manufacturing and business administration followed by an MBA in the US and a PhD, climbed the career ladder from assistant of a board member to board member himself in only eleven years. However, although Großmann made a successful career he always remained a „steel-man“ who loved steel as a material itself and who always regarded the steel industry as a branch with future - which was in strong contrast to the opinion of his colleagues at Kloeckner AG. The workers of the Georgsmarienhütte felt the engagement of Dr. Großmann and had already experienced his enthusiasm between 1989 and 1991 when he was the managing directors of the company mandated by the Kloeckner AG.

Dr. Großmann always regarded the turnover of the company as feasible and the employees of the Georgsmarienhütte supported the idea that the company should be sold to him. Although the Georgsmarienhütte had produced heavy losses and experienced enormous liquidity problems due to excessive debt burdens he knew the employees, the production facilities, the products and the strengths and weaknesses of the company. In this context he had often questioned the added value that the Kloeckner group had provided.

The subsidiary, which had suffered from oversized and outdated technology for quite some time, had been prevented from implementing the necessary reorganisation of its business by its parent company, Kloeckner AG, and was therefore quite close to bankruptcy. For that reason Dr. Großmann felt encouraged to put the company on a stand-alone basis - however the take-over was not feasible as long as the debts of the company were still higher than the yearly turnover.

The composition proceedings of Kloeckner AG and Georgsmarienhütte changed everything. If the negotiations were successful, Georgsmarienhütte would be forgiven the major part of its debt. Gradually, the initial planning phase became a concrete plan. In 1992 Dr. Großmann took the opportunity of a board meeting to announce his wish to take over the company to his colleagues and to resign from the Kloeckner group. With this Großmann permanently severed ties with the Kloeckner group. Dr. Großmann left behind a contract that was still valid for another three years and the social benefits inherent in such a position in an internationally operating group. In the place of this security Dr. Großmann would receive 40 percent of his former salary and was forced to agree not to distribute the company's profits for a period of five years. At that stage Dr. Großmann was aware of the difficulties he would have returning to industry in the event of the failure of the "Georgsmarienhütte project".

Dr. Großmann was very confident that he would not have to rely on a return to industry. The bankers who supported him seemed to share his view. In 1994 Dr. Jürgen Großmann, the company's former managing director, and Drueker & Co. GmbH, Frankfurt, an equity provider specialised in project financing, completed the leveraged management buyout transaction and named the new company Georgsmarienhütte GmbH. The banks financed DM 100m for a state-of-the-art electronic steel oven which would serve to make Georgsmarienhütte GmbH the nation's cheapest manufacturer of ready-made products.

The workers at Georgsmarienhütte stood firmly behind their new shareholder. Dr. Großmann was very adamant from the start, however, that the company would have to go through some hard times and would only survive if everyone avoided hiding behind excuses and made a concerted effort to become the best. The workers agreed and started working for their common goal.

2.7 Value creation after the LMBO

According to Dr. Großmann the turnaround of the company would succeed due to his comprehensive understanding of the product and his certainty that there were hidden reserves which the parent company had not been able to discover and exploit. Dr. Großmann also recognised the importance of a confident vision for the company's future and ample understanding of "human nature". In this context it was one of his company policy to principally ask other members of the board for their opinion about certain issues before stating his own opinion. Dr. Großmann held a democratic leadership style in high esteem and had no intentions of being the sole decision-maker in a patriarchally led company organisation.

2.8 Performance after the LMBO

One year after the buyout, in the financial year 1994/95, the company had sales of DM 486m, which represented 118 percent of the sales in the year of the buyout and 133 percent of sales one year before the buyout. Due to increased motivation among the management and being free from former group directives, the sales volume in the second and third year after the buyout increased to 163 percent and 138 percent, respectively, a considerable increase in comparison to the years before the buyout. Georgsmarienhütte's operating profits and year-end results declined slightly in the first post-buyout year due to restructuring measures which had to be undertaken, however operating cash-flow showed significant improvement after the LMBO, although the company was not able to profit from the step-up potential of assets.

This was mainly due to the spin-off from the parent company Kloeckner in the following respects:

- Avoidance of high group costs charged by Kloeckner
- Possibility to make necessary investments in order to stay competitive
- Transfer into a new product area
- Reduction of unnecessary work force

In summary, the development of the performance of the Georgsmarienhütte after the buyout in relation to the buyout year 1992 was as follows:

in 000 DM	1993/94	1994/95	1995/96
Sales	118%	163%	138%
EBIT	91%	109%	81%
Income/Loss	-50%	58%	14%

In order to complement their existing product range and production facilities, Georgsmarienhütte acquired the Austrian company Stahl Judenburg GmbH after the buyout. Stahl Judenburg had a turnover of DM 64m and a staff of 380. They specialised in the production of smaller units which allowed Georgsmarienhütte to supply the market with a complete range of products. Later, in 1997, they also acquired Gröditz Stahlwerke and Walzwerk Burg GmbH as a 100 percent subsidiary. The latter was located in Saxony Anhalt, a state of the former East Germany.

Despite his success, however, Dr. Großmann remained cautious about the future of the German steel industry and consequently the continuing success of the Georgsmarienhütte. The German steel capacity was still too large and this also concerned Georgsmarienhütte GmbH area of operation. Additionally, competition from importers was increasing, especially from the GUS states, where logistic and qualitative problems were gradually coming under control. According to the CFO of Georgsmarienhütte, Mr. Robben, Georgsmarienhütte not only experienced problems due to the economic downturn but also based on structural difficulties.

In order to survive in these difficult economic times, one of Georgsmarienhütte's main goals remained the reduction of the remaining debt. However, for Dr. Großmann the most important victory after the buyout has been his rapport with his employees. In the past he could never be sure if his ideas would be put into practice due to his dependence on the parent company, Kloeckner AG. Today the management of the Georgsmarienhütte can realise plans they feel are profitable for the company and this is Dr. Großmann's idea of „freedom for creativity and own ideas “ that company management should have.

3. X GmbH

(as agreed with the management, the name of the company will remain undisclosed)

3.1 Company background

The company X was founded in 1945 as a consolidation of several parts of the company XY in Bavaria. In 1948 the newly created company X started developing hydraulic products, which are still the basis of their product line today. In 1955, company X was taken over by the shareholders of the A group. From that time on, the company diversified its activities in the following areas. The company, now called X GmbH, enlarged its product range to include re-railing equipment for railway vehicles of all types in 1962, and products for rescue technology in 1972. In 1981, the X GmbH was incorporated into the A group as a division. Nine years later, the factory moved to the new premises where the company is still located today.

3.2 Company owners before the buyout

Before the buyout the company was owned to 100% by the German corporation A-group.

3.3 The products of the company

The product line of the company consists of three major areas:

- Rescue equipment for road, rail and air accidents
- Hydraulic tools used in factories, workshops and manufacturing to lift and move heavy loads, and
- Rerailing equipment for all types of rail vehicles in order to set vehicles upright which have been overturned or derailed. Such equipment is especially useful in the event of accidents on single-line railway tracks or in locations difficult to access, e.g. tunnels.

3.4 The LMBO

In the beginning of the 1990s the parent company of the X-GmbH, the A-group experienced heavy losses also based on a general downturn in German economy at this period. A restructuring of the existing activities was necessary and the management of the A-group decided to concentrate in the future on its strength and core activities. The group began the process of restructuring its operations, which involved divesting several group divisions which didn't belong to its core activities. The X GmbH was considered one of the non-core activities of the group and its management was informed in the fall of 1992 that the A-group was actively seeking a buyer for the division.

The general manager of the X-GmbH recognised the situation and convinced other managers of the company to consider a take-over of the company through a leveraged management buyout together with a potential equity investor. In the meantime, the sales process was underway at the parent company. Several buyers went through the due diligence process in order to evaluate the company assets and performance. However, this proved very time consuming and complicated due to the fact that the company had been fully integrated in the group's records and had no separate audit records.

After the due diligence process and a conscientious selection process, 3i was able to make the best choice for the company. 3i saw the growth potential of the division and felt that it could be best achieved under the charge of the existing management. Several banks were consulted for the financing of the buyout, including regional banks, which 3i felt should be included in the search. In 1993 management and 3i took over and renamed the company.

3.5 The LMBO participants

The participants of the LMBO financing with respect to equity and debt were as follows:

Purchase price:	DM 30,0m
Equity:	DM 5,0m
Silent participation:	DM 2,8m
Debt:	DM 27,2m
Equity:	
3i	minority stake
Management	15 percent
Silent participation	DM 2,8m.
Debt	DM 27,2m
IKB	N/A.
Dresdner Bank	N/A.
Deutsche Bank	N/A.

3.6 Performance of the company before the LMBO

(In accordance with present owners the company figures will not be revealed)

For equity providers and bankers it was problematic to measure the performance of the target company, as its results were historically always included in A-group's financial statement. However according to the figures available at this time it was evident that the division was underperforming significantly with year-end results barely above break-even. However, the investors who examined the potential of the company on the basis of these figures recognised that a major source of profitability problems in the division was the high transfer costs charged by the A-group. The company was also subject to group directives which prevented them from reacting quickly and flexibly to the challenges imposed by the market.

3.7 Performance of the company after the LMBO

Net sales for the first year after the buyout increased significantly through an important large-scale order. Operating profit and operating cash-flow showed positive effects from this order. The rationalisation measures further increased X's results, as did the lack of transfer costs to the parent company which had diminished the operating result in previous years. In the second year after the buyout, no such order could be repeated so that sales, operating profit and operating cash-flow decreased in comparison to the year before. Additional provisions which had been allocated to further restructuring after the LMBO also contributed to the decline in the operating income from the previous year. Resuming, the general manager of the X-GmbH underlines that the LMBO had the following impact on the positive development of the company performance:

- Independence
In the past, the company was dependent on all strategic decisions coming from the parent company, the A-group.
- Cost savings
The A-group had charged the company enormous fees for administration and consulting.
- Restructuring. Several unproductive units could be closed and the level of inventory could be independently be determined and administered by the company.

3.8 Exit through the acquisition of the company

Only two years after the LMBO in 1995, the X GmbH was sold to the American B-group for \$35m which signified for the equity investors that they had realised considerable capital gains due to their initial investment of DM 30m .

4. Wesumat, 1994

4.1 Company background

For over 30 years, Wesumat has been developing solutions for commercial carwashes, and what started out as a small business had become a corporation with international operations. The founder of the company, Mr. Weigele, an engineer and inventor presented in 1962 the first fully automated brush carwash system in the world, which back then was still manufactured under licence. Seven years later, the company began to manufacture its own carwash and train washing systems. The 210 metre-long washing facilities for the high-speed ICE train in Hamburg and Munich were also produced by Wesumat.

In 1973, the company owner Mr. Weigele divided the company into a marketing company in Düsseldorf and a production company in Augsburg. In 1985 the Wesumat marketing company took over the Augsburg production company and the former owner, Mr. Weigele was bought out mainly by French shareholders and also the managing director, Mr. Decker acquired 5 percent of the company. When the marketing company took over the production in Augsburg, annual sales totalled DM 9.4m in 1984; in the following year, this figure was raised to DM 15m. 1986 was the year in which the soft-wash roll-over systems achieved their decisive market breakthrough setting new standards with new soft-wash technology. Subsidiaries were established in Belgium and France and in 1988 in Great Britain. In 1989, Wesumat's turnover exceeds the DM 50m figure for the first time.

4.2 Company owners before the buyout

Before the buyout the company was owned to

- 95% by French investors
- 5% by Mr. Decker

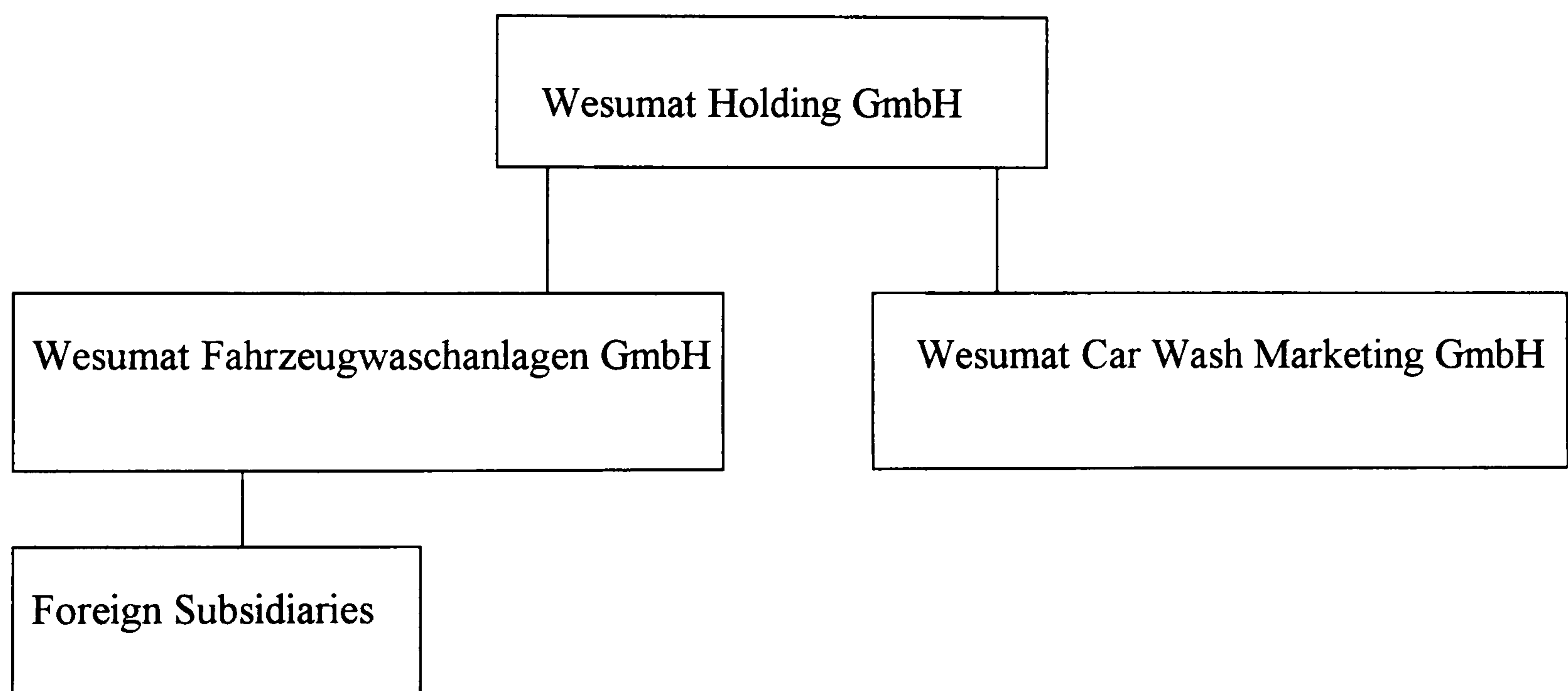
4.3 The products of the company

In 1986 the development of the softwash system and the launch of the first twin portal system, which opened up a new dimension in carwashes for service stations, brought resounding product success. A further highlight, the 9609 carwash system hit the market in 1988. In 1994, Wesumat proved its innovative strength again with the launch of the Wesumat scan wash, a system that cleans vehicles contact-free with only chemicals and high-pressure water.

4.4 The structure of the company

As part of the LMBO transaction in 1994, Wesumat Holding was founded with a share capital of DM 11.6m. It was organised in two operating companies. Wesumat Fahrzeugwaschanlagen GmbH continued the firm's original business, the production and marketing of carwash systems. With the formation of Wesumat Car Wash Marketing GmbH, the company entered the operational side of the business. Carwash systems were installed and maintained on behalf of petroleum companies. Wesumat also assumed the on-site business management of the systems as well as training for the operators. This form of business became very successful as the highly personnel-intensive operation of a carwash is normally outsourced.

Wesumat Holding GmbH now has subsidiaries in eight European countries (Sweden, Norway, Belgium, Finland, France, Spain, the United Kingdom and Austria), joint ventures in Hungary, Denmark and Poland and is represented in 35 countries world-wide. In the headquarters in Augsburg, there are 350 employees engaged in production, sales, service and administration. The actual structure of the Wesumat Holding can be presented as follows:



4.5 Performance of the company before the LMBO

Before the LMBO in 1994, Wesumat was already a market leader in carwash systems and showed impressive growth rates in turnover and operating profit. Here, the high quality of the company's products and the unremitting commitment to improving the cost-effectiveness of commercial car wash systems brought Wesumat success and continual growth.

The development of the Wesumat Fahrzeugwaschanlagen turnover and the per capita productivity from 1990 to 1994 was as follows:

Year	Turnover (in 000 DM)	Change %	Employees	Turnover per employee
1990	59.105	+21%	191	309
1991	89.836	+52%	235	382
1992	110.689	+23%	293	378
1993	118.018	+7%	336	351
1994	119.126	+1%	333	357

(Source: Wesumat Fahrzeugwaschanlagen, 1997)

As can be seen in the figures outlined above, the company experienced considerable turnover growth rates in the years 1990-1992 between 21 and 52 percent. Increasing also simultaneously the number of employees over time the turnover per employee could be constantly enhanced reaching its peak in 1991 with DM 378.000 per employee.

4.6 The LMBO

Wesumat's LMBO team consisted of the following parties:

- 3i
- Eurosynergies
- Mr. Wolfgang Decker, Managing partner Wesumat

In 1994 the french shareholders of Wesumat decided to sell their stake in Wesumat in order to reorganise their existing portfolio. Mr. Wolfgang Decker, managing director of Wesumat, considered increasing his 5 percent stake in the company through the French shareholders sale. Several equity providers completed the due diligence process to determine the value and performance potential of Wesumat. Finally, Eurosynergies, a company who administers French investment funds and 3i were selected as ideal equity providers. Mr. Decker also participated in the buyout and increased his stake from 5 to 10 percent.

The financing structure of the LMBO transaction was finally as follows:

Purchase price	DM 62.5m
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Equity:

Common stock:	DM 11.6m
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Capital reserve:	DM 2.9m
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Mezzanine and Debt:

Shareholder loan:	DM 11.4m
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Loan A:	DM 3.1m
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Loan B:	DM 7.3m
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Mezzanine Loan:	DM 13.0m
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Loan D:	DM 8.1m
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Loan E:	DM 2.9m
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Loan F:	DM 2.2m
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Total:	DM 62.5m
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4.7 Value creation after the LMBO

The Wesumat LMBO was based on the desire of the French owners to sell their stake in Wesumat in the process of a new investment and portfolio strategy. Mr. Decker had been with the company since its beginning in the 1960s and was managing partner of Wesumat. He was asked whether he was interested in increasing his current stake in the company in the framework of an LMBO transaction.

Mr. Decker was convinced of the growth potential of the company and agreed to the LMBO. Financial investors were selected to participate in the transaction who agreed to respect management/owner's independence in the operational decision-making - 3i and the french venture capital firm Eurosynergies. The transaction was completed in 1994 and the growth potential was subsequently confirmed by Wesumat's increase in consolidated sales from DM 70m in 1990 to DM 170m in 1995.

4.8 Performance after the LMBO

Wesumat's sales figures show the realisation of its growth potential since the LMBO in 1994. In the two years subsequent to the buyout, turnover increased considerably, reaching growth rates of 8 percent and 15 percent respectively. In the first post-buyout year staff was reduced from 333 to 324 which, in combination with the increase in total turnover, led to an increase in turnover per employee from DM 357,736 to DM 396,662. In the second post-buyout year turnover increased another 15 percent and the turnover per employee rose to DM 424,643. Operating profit and operating cash flow experienced a decline in the first year after the buyout due to the substantial investments the company had to make in order to expand. The positive results of the expansion strategy were apparent during the second year of the buyout.

In summary the development of turnover and turnover per employee of Wesumat Fahrzeugwaschanlagen after the buyout was as follows:

Year	Turnover (in 000 DM)	Change %	Employees	Turnover per employee
1994	119.126	+1%	333	357
1995	128.518	+8%	324	396
1996	148.200	+15%	349	424

(Source: Wesumat Fahrzeugwaschanlagen, 1997)

4.9 Exit through Initial Public Offering (IPO)

In the fall of 1997, the company announced its initial public offering at the Frankfurt stock exchange, where 60 percent of the company shares were to be offered to the public and the share capital was to be increased from 11.6m to 20m. According to the owners/managers, the proceeds from the IPO would be used to promote the expansion strategy of the company which is, among other goals, focused on the fast developing nations in Asia and Eastern Europe. In the year of the IPO in 1997 the company projects consolidated sales of DM 210m which would exceed its 1996 level by 8 percent.

5. Tarkett

5.1 Company background

Tarkett is one of the world's largest manufacturers and distributors of resilient and hardwood flooring, with an annual manufacturing volume of approximately 100 million square meters of flooring products. Situated in Frankenthal, Germany, Tarkett produces flooring products for sale to both residential and commercial markets in over 40 countries. In addition, Tarkett has a small industrial foils business in Europe, with a product range of vinyls for various applications such as labels blinds and furniture.

Tarkett was established in 1886. In 1970, they acquired the resilient flooring operations of Protan & Fagertun AS in Norway and of General Aniline & Film Corporation in the United States as well as Harris Manufacturing Company, one of the oldest hardwood flooring manufacturers in the US. In 1987, Swedish Match almost doubled the size of Tarkett's business with its acquisition of a majority stake in Pegulan Werke AG, Germany's leading residential flooring manufacturer. In 1988, Stora, the Swedish forestry products and paper manufacturer, acquired the Swedish Match group of companies, which included substantial manufacturing assets as well as the Tarkett and Pegulan operations.

5.2 Company owners before the buyout

Before the buyout the company was owned to 100% by the Swedish corporation Stora.

5.3 The group structure

Tarkett has 13 manufacturing facilities located in Sweden, Germany, Ireland and the United States. The Group's European flooring operations have an extensive sales and distribution network with over 500 salespeople throughout the major European markets and in Australia. The US resilient and hardwood flooring operations had their own sales force that sold throughout North America through an aggregate of approximately 115 independent distributors.

5.4 The products of the company

Tarkett produced and sold a wide range of resilient and hardwood flooring products marketed under several brand-names, including Tarkett, Tarkett Pegulan and Febolit. The company believed that the group's future growth could be brought about through its continued ability to create and sustain brand recognition for its products, primarily through in-store marketing and advertising, as well as with targeted campaigns to particular target groups.

5.5 The flooring market

The world-wide flooring market consists of several product groups: carpet, ceramic, tiles, resilient linoleum, laminates, hardwood and rubber. Based on market data, Tarkett estimated that carpet accounted for approximately 58 percent of the total flooring market by volume, while ceramic and resilient flooring are estimated to account for 19 percent and 16 percent, respectively. Hardwood flooring with 4 percent and other flooring accounted for the rest. While carpets comprised the largest proportion of the flooring market, Tarkett believed that sales of carpet by volume were flat or shrinking in most developed countries due to concerns about maintenance, allergic reactions and a short product lifespan. These considerations of Tarkett have resulted in renewed concentration on non-carpet flooring, particularly hardwood and ceramic tile.

Despite the overall trend away from carpets towards ceramics and hardwood, large differences existed in the markets between regions in Europe. The Nordic countries had a higher than average proportion of resilient and hardwood flooring, while Central Europe countries had a higher proportion of carpet and Southern European countries favoured ceramics. Tarkett reorganised its marketing and distribution network in order to respond more effectively to the demands of each of these regions.

5.6 Market position and competition

Resilient flooring

In 1992, Tarkett was the largest manufacturer of vinyl flooring for the residential and commercial markets in Europe. They estimate that the total European market for resilient residential flooring at that time was approximately 150 million square meters, with six competitors representing over 80 percent of the total market. The management of Tarkett assumed that Tarkett was the market leader by volume in this segment with an estimated 21 percent market share.

Tarkett was also considered to be the largest manufacturer of resilient commercial flooring for the Western European Market, which totalled approximately 100 million square meters in 1992. Although seven competitors accounted for almost 70 percent of the European market, with Tarkett in the leading market position, each national market was generally dominated by a strong domestic competitor. In the United States, the total market for resilient flooring was estimated in 1992 to have been 260 million square meters, approximately 73 percent of which represented residential demand. Tarkett and three other manufacturers accounted for nearly 90 percent of the market.

Hardwood flooring

Tarkett was the largest manufacturer of hardwood flooring in Europe. Consumer purchases in Western Europe of hardwood flooring in 1992 were estimated at approximately 58 million square meters, with the pre-finished flooring market representing approximately 41 percent of this total.

While the overall hardwood flooring market was more fragmented than the markets for resilient flooring, the division's major area of focus, prefabricated, cross-laminated products, was concentrated, with six competitors accounting for over 60 percent of the market. Tarkett and two other larger manufacturers each had nearly equal market shares of approximately 15 to 20 percent. The German, Scandinavian and Austrian markets were Tarkett's strongest markets, together comprising nearly 80 percent of the group's 1992 sales.

In the United States, the total market for hardwood flooring was estimated to be 34 million square meters in 1992. In general, the market was very fragmented, with small local producers of solid wood flooring accounting for a majority of the market. The prefabricated laminate segment in which Tarkett competed was relatively concentrated with five competitors accounting for 75 percent of the market.

5.7 The LMBO

In the early 1990s, Stora decided to concentrate on its core business and began divesting their non-core activities. Tarkett, with its flooring activities belonged to Stora's non-core business and in late 1992, began discussions that resulted in the agreement to sell Tarkett to the management of the company and to potential investors. In 1994, Tarkett first operated as a stand-alone operation, relying on Stora solely for credit and limited administrative support. The management at that stage was convinced that it had adequate personnel and systems in place to operate as an independent entity following the LMBO.

Pursuant to the sale and purchase agreement dated February 1994, the company agreed to acquire from a subsidiary of Stora approximately 99 percent of the shares of Tarkett AG, which operated the Group's German facilities, and 100 percent of Tarkett International AB from Stora, which in turn owned approximately 100 percent of the shares of Tarkett AB, which operates the Group's Swedish, US and Irish facilities. The remainder of the outstanding share capital of Tarkett AG was owned by the public.

The Company intended to finance the acquisition as well as the repayment of third party borrowings of approximately DM 8m and expenses associated with the acquisition of the company estimated at DM 45m by an aggregate cash contribution of the shareholders, a bank term credit facility, the sale of notes and the utilisation of cash in the group (see here point 5.7 Financing of the LMBO).

The Sale and Purchase Agreement between Stora and the acquirers provided for various representations and warranties from Stora which were typical for such kind of transactions. For example Stora had agreed to indemnify the company for certain potential losses relating to the group's operations as conducted prior to the closing date like claims relating to hazardous substances, losses arising under environmental laws, certain pending litigation, or potential tax claims related to periods before January 1993. The aggregate liability for Stora for indemnities under the Sale and Purchase Agreement was limited to SEK 2.900m or DM 636m which was a quite considerable amount for the selling company.

5.8 Financing of the LMBO

The funding of the purchase price including fees and repayment of existing loans was as follows:

Purchase price: DEM 711m

Sources of funds (in million DM):		Uses of funds (in million DM):	
Bank Credit Agreement	290	Purchase price	658
Notes	238	Fees and expenses.	45
Equity contribution of shareholders	160	Repayment of loans	8
Utilisation of cash in the group	23		
	<hr/>		<hr/>
Total	711		711

5.9 The LMBO team

Ordinary shares	
Management*	8.8 percent
CWB Capital Partners	43.6 percent
Goldman Sachs	43.6 percent
Hancock International Private Equity	4.0 percent
Preference Shares	
• CWB Capital Partners	47.8 percent
• Goldman Sachs	47.8 percent
• Hancock International Private Equity	4.4 percent

- * The Management team consisted of the following members:
 - Lars Visen, President and Chief Executive of the Group
 - Ingvar Backhamre, Division Manager, Resilient Flooring, North America
 - Orvar Barthelson, Division Manager, Flooring - European Sales
 - Göran Enocson, Division Manager, Flooring - European Production
 - Christel Hiller, Vice President and Finance & Administration
 - David Wootton, Division Manager, Hardwood North America

Mr. Lars Visen, chief executive manager of Tarkett since 1990, was responsible for the LMBO management team. Mr. Visen, who had studied mechanical engineering in Stockholm and Göteborg, started his career in 1972 as a development engineer at Gränges Metalwerken in Sweden where he systematically climbed the career ladder. Between 1982 and 1990 he was the chief executive officer of several Swedish corporations, in the end of the Swedish company SAB Nife. In the Spring of 1990 Mr. Visen took the position of chief executive officer at Tarkett Pegulan.

In order to build up their confidence in the company, Mr. Visen recognised early on that it was important to allow the investors to know the company's management team very well. To achieve this goal, Mr. Visen travelled extensively during the search for appropriate financing and attended company presentations to international institutional investors. He knew that the investors did not need comprehensive information on the inventories of the machines, but rather to understand the motivation and vision of the management team. If the management team were able to inspire confidence in the investors, they would be prepared to participate in the company.

After completing the buyout in 1994, Mr. Visen envisioned already at that period in time Tarkett's initial public offering in the coming year. Tarkett's good performance subsequent to the buyout was one of the main reasons for the company's successful IPO.

5.10 Performance of the company before the LMBO

5.10.1 Financial year 1993

Net sales for the nine months ending September 1993 amounted to DM 1.274bn marks or 95 percent of the comparable sales volume in 1994 at DM 1.337bn. Operating profit amounted to DM 82.5m for 1993 which represented 60 percent of the operating profit of 1994 which increased to DM 137.2m. Cash provided by operating activities was DM 85.4m which accounted for 75 percent of the 1994 operating cash-flow in the amount of DM 113.8m.

In detail the company performance before the buyout was as follows:

in 000 DM	1993	1994
Sales	1.274	1.337
EBIT	82.5	137.2
Operating cash-flow	85.4	113.8

In recent years, the management of Tarkett has focused on improving profitability by concentrating on the group's core resilient and hardwood flooring business, where Tarkett has built strong market positions due to its widely recognised brand names, its product range, its extensive European sales and distribution network and its manufacturing economics of scale. Management has also focused attention on cost reduction throughout the group.

Since the beginning of the 1990, the group has reduced headcount in continuing operations by approximately 15 percent as of December 31, 1993 resulting in an improvement in income from operations despite reduced volumes and recessionary conditions. Although unit volumes in resilient and hardwood flooring declined by approximately 4 percent from 1989 to 1992, Tarkett's gross margins have improved from 32.1 percent in 1989 to 34.3 percent in 1992 and to 35.9 percent in 1993.

5.11 Value creation after the buyout

Tarkett's management's strategy was to continue reducing costs through

- a reduction in selling and administrative costs by improving the efficiency of the group's distribution network and consolidating its 15 European warehouses and service centres
- by a further improvement in manufacturing efficiencies by transferring production to the group's lowest cost facilities, increasing line speeds, reducing production set-up times and optimising raw materials usage.

Furthermore, the following measures have been undertaken in order to improve the company performance:

- Slim, success-oriented management structures
- Concentration on profitable core-areas
- Halt to an expansion policy on the costs of margins

Tarkett's management believed that the company's improved cost structure would position the group to capitalise on several positive factors in the flooring market including the recovery in North America and Europe, the continued development of the former East Germany as well as Eastern Europe and the increasing preference of European and US consumers for hard flooring, particularly hardwood flooring instead of carpets. The management also aimed at benefiting from the sale of a greater portion of higher margin products, including a new vinyl product aimed at the residential markets in the US and a non PVC-product in Europe which were launched in 1994.

In summary, Mr. Lars Visen, Tarkett's general manager, believes that the LMBO transaction served as an act of liberation which incited increased motivation among management staff and the employees. After the buyout, the employees suddenly began to approach him with new ideas and concepts - an attitude which had long been missing at Tarkett.

Mr. Visen stressed that he had been forced to sacrifice much of his time in the past for administrative dealings with the company owners instead of being actively involved with the operative business of the company. After the buyout he was finally in the position to give optimise the flow of communication in the company, which he saw as one of the essential tools of a successful company.

5.12 Performance of the company after the LMBO

5.12.1 Financial year 1995

Net sales for 1995, the first year after the buyout, increased to DM 1.340bn from DM 1.337bn for the financial year 1994, an increase of DM 3.5m or 0.2 percent. However, the company had not achieved its goals due to the restrictions placed on business development by the strong mark and the decreasing consumer market which allowed the group only a small rise in sales.

Operating profit increased to DM 145.4m in 1995 from DM 89.4m in 1994, resulting in an increase in the operating margin from 6.6 percent to 10.8 percent in 1994. The operating result could have been improved mainly due to manufacturing cost reductions and changes in product mix to higher margin products.

Cash provided by operating activities amounted to DM 128.2m in 1995 compared to DM 113.8m in 1994.

5.12.2 Financial year 1996

Net sales for 1996 increased to 1.348,6 million marks from 1.340,4 million marks in 1995, an increase of 8,2 million marks or 0,6 percent . The increase in sales was mainly due to exchange rate improvements - without consideration of this, profits sales volume would have been decreased by 3.2 percent amounting to DM 1.298bn. Operating profit decreased to DM 137.6m in 1996 from DM 145.4m in 1995. This decrease was based on the decline in sales in the first 6 months of the year when declining sales and remaining operating expenses diminished the results of the European production sites. Cash provided by operating activities amounted to DM 80.5m from DM 128.2m in 1995. The decline in operating cash-flow was mainly due to the decrease in operating profit as well as the higher working capital requirements and inventories brought about by the introduction of a new product line.

In summary, the performance of the company after the buyout was as follows:

in 000 DM	1995	1996
Sales	1.340	1.348
EBIT	145.4	137.6
Operating cash-flow	128.2	80.5

5.13 Exit through an Initial Public Offering in 1995 and merger of Tarkett with Sommer-Alibert in 1997

In June 1995, the investors of the leveraged management LMBO of Tarkett publicly offered shares of the company which was well received by the Frankfurt stock exchange. In May 1997, Tarkett AG and Sommer-Alibert S.A. (France) entered into an agreement to combine their world-wide flooring businesses to create one of the largest flooring companies in the sector. The deal involved Sommer-Alibert taking a sixty percent stake in Tarkett which in return would pay the DM 705m in cash for Sommer's floor covering business. At the same time, Sommer-Alibert would acquire 20.1 million shares in Tarkett through a public take-over offer of DM 32.75 per share. The purchase resulted in a significant cut in the 65 percent stake of the two current shareholders, the investment funds Goldman Sachs and Doughty Hanson, who had become shareholders in the course of the leveraged management LMBO, and they were compensated with shares in the new company. According to the CEOs of both companies 'the combination of these two companies would create a global floor covering producer with a well-balanced portfolio of activities, both from a geographic and a product point of view and it will also generate potential for synergy and cost reductions'.

X. Summary of the interview impressions

The LMBO environment is unlike that of traditional businesses. Interviews with LMBO financial investors and owners/managers reinforce the theories about the success of LMBOs and are compared with the empirical results of the research. Five owners/managers of LMBO companies were interviewed and each interview was conducted concurrently with the accumulated data.

The LMBO companies in this sample all resulted from spin-offs of national and international corporations, one following composition proceedings of the parent company and one originating from a private source. The purchase price of the sample companies ranged from DM 2 to DM 711m and the debt/equity ratios of the LMBO companies ranged from 1:3 to 1:5.

Concerning the post buyout performance of the LMBO companies the general impression of the financial investors was that LMBO executives manage more effectively after a LMBO than before; they promptly and decisively react to changes in the environment and pay attention to their advantageous business, manage cash-flow, recognise and resolve problems quickly and spend their energy constructively in managing the businesses.

The interviews with owners/managers of LMBO companies revealed that several changes had been introduced after the buyout with respect to employees, compensation plans, product pricing and cost-cutting measures. One manager described the present environment as opposite to when he managed the firm as a division of a large group. He reported that after the buyout, managers/owners do what has to be done, whereas before the buyout no one took a risk and each manager took on a lot of paperwork to protect himself. After the LMBO, managers/owners pay close attention to projecting and monitoring cash-flows. The comments by the LMBO participants interviewed on the development of the company after the buyout confirmed the results of the research.

All of the managers/owners interviewed managed to increase sales volume after the buyout by promptly and decisively reacting to changes and opportunities in the market without being subject to the permission of the owner or group headquarters. The managers/owners interviewed referred to a slight decline in results the first year after the buyout due to the increased expenses for restructuring, employee lay-offs and social responsibilities. These measures were all implemented in the first year, as owners/managers attempted to consider all possible future liabilities and allocate resources for them in the first year after the buyout rather than in the years following the buyout.

All of the owners/managers emphasised that they paid closer attention to projecting and monitoring cash-flows. Operating cash-flow increased considerably due to increased sales volume, better management of working capital and stable operating expenses. All of the executives in the survey tend to express their management goals in terms of cash-flow and not quarterly profits reports.

There was a common perception among those interviewed about the management of an LMBO company. Financial investors are regarded as active participants in the management who, however, do not interfere in the day-to-day business decisions of the company. Owners/managers manage the company more effectively due to their freedom in decision-making and the flexibility they have to react to opportunities on the markets. In the interviews, all participants stated that company value increased after the buyout due to improved performance which was confirmed by the successful exits these companies had already completed.

The exits of some of the sample LMBO companies confirmed the findings in part C of this study that going public as an exit alternative was less popular for German LMBO companies than for their counterparts in the UK. More frequently a trade sale is the exit alternative of choice for German LMBO companies. The post-buyout purchase price of the LMBO companies gave their investors a considerable return on their initial equity due to the favourable debt/equity ratio they had chosen to finance the transaction.

Finally, due to the good post-buyout performance of the sample LMBO companies, they were able to repay the LMBO debt in compliance with the repayment schedule agreed upon initially. Interested third parties were able to find additional growth and synergy potential in the LMBO companies and were therefore willing to pay a purchase price which allowed for considerable capital gains for the investors.

XI. Comparison of the case studies

Variables	Wallace & Thierman	Georgsmarienhuette	X-GmbH	Wesumat	Tarkett
Date of the buy-out	1989/1990	1992/93	1993	1994	1994
Source of the buy-out	Foreign parent Pennwalt Inc.	National parent Kloeckner AG	National parent A-group	Foreign shareholders Private source	Foreign parent Stora
Reason for the buy-out	Return to core business	Composition proceedings	Return to core business	Restructuring of portfolio	Return to core business
Purchase price	US 44m	DM 2	DM 30m	DM 62.5m	DM 711m
Ratio Equity/Debt	1:5	n.a.	1:3.5	1:3.5	1:3.3
Management equity ratio	10%	75%	15%	10%	8.8%
Value creation through LMBO	Turnaround in the US: - Reduction of staff - Reinforcement of the management - Improvement of production planning - Improvement of controlling systems	Turnaround: - Avoidance of high group costs - Investments in new technology - Transfer into new product area - Reduction of staff	Value creation: - Independence in decisions - Avoidance of high group costs - Closing of unproductive units - Inventory regulation	Value creation: - Expansion strategy - Independence in decisions	Value creation: - Slim management structures - Concentration on core areas - Halt to expansion strategy - Cost reduction - Improvement in manufacturing efficiency Going public and merger with Sommer Allibert
Exit form	Trade Sale	No exit	Trade sale	Going public	Going public and merger with Sommer Allibert
Exit price	DM 130m	No exit	US 35m	n.a.	n.a.
Return on equity	Equity \$11m/Exit price\$ 130m	No exit	Equity DM 5m/Exit price \$35m	Partial exit	N.a.

F. Findings of the study

Part A

Part A had introduced the subject of leveraged management buyouts, beginning with the historical development of leveraged buyouts (LBOs) in the US to the leveraged management buyouts in the UK and Continental Europe.

Part B of the study presented the general, non-country specific concept of the leveraged management buyout transaction in order to establish a general understanding of the different steps and characteristics of this special take-over transaction. One important result of the LMBO evaluation is that it is crucial for the success of the transaction to adopt the most appropriate structure from the beginning which can include various elements such as equity, mezzanine and debt financing. Once the purchase price is established and agreed among the respective parties, the appropriate distribution of equity, mezzanine and debt funding should enable the LMBO company to build up a 'cushion' which will protect the company from failure in times of a declining business and market environment. The research and evidence of US economists (Roach 1989) on the right mixture of equity and debt financing revealed that the inherent risk exposure and the potential vulnerability of highly leveraged companies has to be considered when planning the buyout structure. Roach emphasises in this context that the real test for highly leveraged companies comes in times of recession or increasing interest rates when it remains to be seen if the projections in terms of debt and interest repayments were realistic to fulfil its debt servicing requirements in a declining business environment. Another important point of discussion in this part of the research concerned the exit alternatives available to the LMBO-investors. Here, different options are available depending on the existing structures in each country: how well-established, organised and functioning the available financial markets are and what option is the most appropriate for each LMBO company.

In conclusion, it is important to realise that an LMBO transaction can not be considered as homogeneous across Europe, but rather one has to be aware that each European country, which has taken the idea from the UK, has had to adopt it to its own existing structures and interests. Although the concept of the LMBO can be regarded as a non-country specific product, the structure of the LMBO transaction itself is driven by micro- and macroeconomic factors and closely linked to the legal and tax environment of each country.

Part C researched and evaluated the specific macro- and microeconomic factors in the UK and Germany which have influenced LMBO activity in both countries in the past and will influence it in the future. After the evaluation, a comparison of the respective macro- and microeconomic factors was made in order to explain and understand the different level of LMBO activity in both countries.

Macroeconomic factors influential to the LMBO market, such as the deep recession in the UK at the beginning of LMBO activity in the early 1980s, increased buyout opportunities in that LMBOs were seen as a viable means to save companies from receivership. In Germany, buyout activity began in the late 1980s against a background of economic strength and growth which was further enhanced by the reunification euphoria following 1989. German Mittelstand company owners and also those of large corporations were reluctant to put their companies up for sale as this could be regarded as a personal failure. Therefore, LMBOs were quite unknown and rare as take-over alternative in Germany.

In the 1990s, the LMBO market in the UK continued to expand, only sources of transactions fluctuated with the changing economic circumstances. When recession emerged again in the UK from 1990 to 1992, receivership became more important, whereas when economic recovery came to full circle towards the middle of the 1990s, divestment and family-owned companies became important buyout sources.

In Germany, from the 1990s on, divestment and family-owned companies have always been the most important buyout sources when a general restructuring process became necessary in German industry in the 1990s.

LMBOs have a relatively long history in the UK and have been recognised as a powerful restructuring tool and as an instrument of economic recovery. The volume of LMBO transactions has increased steadily and comprised 404 transaction in 1994 at a value of £2.5bn. In 1996 the volume of LMBO transactions declined slightly to 402 transactions at a value of pounds 3.6bn. Germany, with a distinctly younger LMBO market peaked at 74 transactions in 1995 in term of number of transactions and in 1996 in terms of value with an estimated LMBO market value of pounds 1.1bn.

In addition to the number of years the LMBO market has been active, research has revealed that other micro- and macroeconomic factors served to encourage or retard the growth of the LMBO market.

In the UK, macroeconomic factors like the establishment and growth of venture capital funds have encouraged LMBO activity in recent years. The UK venture capital industry plays an important role in the European venture capital industry with 45 percent of the total venture capital volume in Europe administered by the UK. Pension funds at 41 percent and insurance companies at 15 percent were the main contributors to venture capital funds. In Germany, the role of equity investment and venture capital firms only gained importance in the late 1980s and banks with 59 percent and pension funds with 10 percent were the major contributors, together representing 69 percent of the total funds available. Due to the relatively late development of equity and venture capital in Germany, capital for LMBO transactions were predominantly provided by bank financing. This proved a large obstacle for many LMBO transactions and retarded the growth of LMBO activity in Germany. In the 1990s, the growing presence of financial investors and the establishment of investment funds of considerable size made ample sources of capital available and encouraged LMBO activity. The existing size and value of the LMBO market in 1994 can be attributed to these development of the financial market in Germany.

The attitude of banks towards LMBO transactions has evolved over time, as has their impact on leveraged buyout activity. In Germany, the 'universal' banking system in place differs completely from the 'Trennbanksystem' prevailing in Anglo-American countries. The lack of expertise in new financial products has prevented banks from playing but a limited role in LMBO transactions. However, over time German banks have proceeded in establishing specialised divisions in order to provide the skills required to structure and monitor LMBO transactions. This gradual transition of banks into the new field of leveraged buyout transactions has encouraged LMBO activity in Germany in recent years.

Exits routes are a major focus of LMBO investors, but the condition and status of the financial markets through which gains are realised are quite different in the UK and Germany. Whereas in the UK, flotation has always been an important exit channel, going public counted as one of the least popular exit alternatives in Germany at only 7 percent of all exits in 1996. The strict entry criteria companies have to fulfil in order to get a full stock exchange listing on German stock exchanges have prevented many from taking this option.

Microeconomic factors have also played an important role in the development of LMBO activity in the UK and Germany. This is especially true for the equity and liability structure which greatly influences the various LMBO take-over models available as well as the banks' influence on the buyout companies. UK companies tend to run relatively high equity ratios of approximately 49 percent due to the applied market or current cost accounting method which allows them to revalue their assets at market value but at the same time prevents them from realising the step-up potential of assets often used in LMBO transactions. German companies, on the other hand, have relatively low equity ratios of approximately 18 percent. The 'hidden reserves' in German companies, however, allow for LMBO models to be utilised, in which the step-up potential of their assets is used to increase depreciation volume, reduce taxable income and therefore increase net cash-flow.

The liability structure of UK and German companies differs greatly due to the fact that German companies rely heavily on bank debt (52 percent). UK companies, on the other hand, prefer external funding through securities (36 percent) which does not allow banks to exert such a pronounced influence on leveraged buyout companies.

Banks also play a totally different role in the UK and Germany in terms of ownership, control and influence in the decision-making process of LMBO companies. In Germany, banks can exert an immense influence through their own voting rights, proxy votes and often a seat on the supervisory board, in addition to their traditional function as debt providers. In the UK, in contrast, companies depend much less on bank debt for the provision of external funds and prefer funding through securities instead. UK banks have therefore much less influence on the decision-making process. Due to the separation of investment banking and corporate lending, UK banks never experience a conflict of their interests as lenders and owners of equity.

Microeconomic factors common to the UK and Germany can be found in the areas of operation of LMBO target companies. In the UK as in Germany, leveraged management buyouts occurred more and more frequently in the distribution and service sectors, in mechanical engineering, business and other services and office machinery. This confirms the assumption there is a growing trend among LMBO financiers to finance service oriented sectors as well, which have few tangible assets but generate strong and stable cash-flow. In the past, LMBO financiers preferred to finance mature, asset rich manufacturing companies whose tangible assets could be used as security.

Further common factors of the UK and Germany are the motives for owners in selling their company. A return to core-activities, implying the divestment of non-core businesses from group holdings as the prime motive, while and succession problems ranked second in the UK at the date of the survey in 1989, as family-owned companies had not yet gained importance as an LMBO source.

There are also similarities between the UK and Germany in vendors' motives for selling their companies to management. For both the time factor played a significant role, as the vendors surveyed considered the sale to the management as the least time consuming alternative. The purchase price motive, ranked second, indicated that management, as the potential LMBO investors offered the highest purchase price.

In the survey, LMBO management teams in the UK and Germany were also asked about their motives in acquiring the company. Their answers reflected Jensen's 'agency cost' theory which outlined the agency related costs which emerge from the conflict between managers and owners. These 'agency costs' were eliminated and performance improved by the change in ownership from managers to owners/managers. The UK and German LMBO managers surveyed gave the following as their prime motives in acquiring the company: the freedom to manage their own company, the belief in the success in the company and the opportunity to increase wealth.

Although there are still some essential micro- and macroeconomic factors which distinguish the UK LMBO environment from that in Germany, the German market has been able to learn from the example set by the UK and increase the activity on the German LMBO market in recent years. The change in attitude of banks towards leveraged finance transactions has been significant, as have the expansion and establishment of equity and venture capital funds and the attitude among owners and managers with respect to LMBOs.

Owners have become more willing to sell their companies and, more importantly, to sell to the management. A new generation of managers has started to emerge with a more entrepreneurial attitude. This could mark the end of the more risk adverse era of management, in which the status, the remuneration packages and the job security in their present position were paramount.

The legal and tax environments in the UK and Germany is very complex with various taxation rates and legal regulations, especially in the context of ‘financial assistance’ and ‘maintenance of share capital’. Therefore, from a legal and tax point of view, choosing the optimal LMBO structure is vital to the success of the transaction.

In the UK, the regulations about ‘financial assistance’ generally prohibit companies from giving financial assistance directly or indirectly to another party for the purpose of acquiring its own shares. Apart from a few exceptions stated in Section 153, 1-4 of the Companies Act, only the ‘whitewash’ procedure for private companies set out in Sections 155 through 158 makes it possible for the purchaser to use their target’s assets in LMBO financing. Therefore, before any LMBO transaction is proposed, it is necessary to ensure that the proposal does not violate the Companies Act.

The next crucial step is the choice of the right LMBO model in order to make use of all the legal and tax advantages available in a transaction. Here, one can choose between a share deal with or without transfer of assets or an asset deal. The LMBO models examined reveal that a share deal with or without transfer of assets offers the most advantages for the vendor and purchaser from a legal and tax point of view. If a share deal without the transfer of assets is employed as the take-over model, one must ensure that the deal complies with the regulations on ‘financial assistance’. If a share deal is followed by the transfer of assets, there are no legal restrictions to using the target’s assets as security for the LMBO loan and its cash-flow for the repayment of the LMBO loan, the two main functions of leveraged in a buyout transaction. From a tax point of view, the research suggests that the share deal offers tax advantages for the vendor and purchaser in the form of ‘retirement’ or ‘group relief’.

In Germany, the regulations about the ‘maintenance of share capital’ established in the Joint-Stock Company Act and Limited Liability Company Act make it difficult to use the target’s assets and cash-flow for the LMBO financing. In order to circumvent these strict regulations, special LMBO techniques have been developed which also provide considerable tax advantages for the vendor and the purchaser.

As in the UK, one LMBO model comprises a share deal followed by an ‘internal asset deal’, also called the ‘combination model’. This model combines the advantages for vendors, in the form of a share deal, and for purchasers, in the form of an asset deal. The only drawback of this model is the trade tax expenses which are not able to be compensated.

In 1995, a new LMBO model was developed to avoid these trade expenses, made possible due to changes in German Reorganisation Law. The resulting ‘conversion model’ allows the corporation to convert to a partnership without revealing their ‘hidden reserves’, which would increase their taxable income. Additionally, the step-up potential of the target’s assets could be realised, resulting in increased depreciation volume, reduced taxable income and increased cash-flow volume.

To sum up the LMBO models used in the UK and Germany, the findings confirm the assumption that the appropriate take-over model enables all participants to overcome the legal and tax barriers in the UK and Germany in the context of LMBO transactions. Therefore, LMBOs have been confirmed to be a viable take-over alternative in the case of divestment, buyouts of family-owned companies, privatisation or other forms of business transaction.

Part E: The impact of the LMBO concept on the post-buyout performance of companies and the evaluation of post-buyout performance of German LMBO companies under difficult economic conditions

In this part, the focus was on the theories and evidence of US, UK and German research concerning the increase in wealth and the improvement in performance of LMBO companies after the buyout. Among the hypotheses examined, the tax hypothesis and 'agency cost' hypothesis offered the most plausible explanations for the post-buyout development of LMBO companies. In the tax hypothesis, operating profit increases as a result of the benefits inherent in the tax structure of an LMBO transaction. Secondly, operating results improve through the reduction of agency costs which arose from the separation of ownership and control between owners and managers before the buyout. This conflict especially involved the amount of free cash-flow available, which technically should be paid out to shareholders, but instead were allocated otherwise by the management in order to increase their power and control. Research in the US and the UK found that the participation of management in the equity of the target increases their efforts to use available cash-flow to invest in positive net present value projects or shareholder dividends, instead of wasting it on the inefficiency of the organisation. Another factor in the 'agency cost' theory points out the role of debt in encouraging organisational efficiency. By issuing debt instead of stock, managers are bound to their pledge to pay out future cash-flow instead of spending it on negative net present value projects.

The following empirical research then examined whether the improvement in performance of German LMBO companies due to the above factors can be sustained for German LMBO companies in the period of recession between 1990 and 1994. The findings revealed that the 30 LMBO sample companies experienced a considerable increase in sales and operating cash-flow volume after the buyout. The LMBO sample companies also outperformed their industry rivals in sales and operating cash-flow. Operational income, in contrast, declined in the first post-buyout year and increased only slightly in the second buyout year.

Despite the positive results of the LMBO sample companies, statistical evidence could not provide significant support for the general assumption that post-buyout performance of LMBO companies is better than pre-buyout performance in times of economic recession. With the exception of sales performance which revealed a significant difference between the pre- and the post-buyout variables, the operating income and operating cash-flow before and after the buyout were not significantly different in order to reject the null hypothesis.

Anecdotal evidence obtained through interviews with LMBO participants revealed that LMBO owners/managers manage their companies more effectively after the buyout than before. The interviews indicated that managers were able to react promptly and decisively to the changes and opportunities on the market and their motivation increased due to their equity in the LMBO company. LMBO managers/owners also gave evidence to the findings showing a decline in operating income in the first buyout year. Increased expenses for restructuring, employee lay-offs and social responsibilities all factored into the decline according to the anecdotal evidence. All LMBO managers/owners confirmed that close attention was paid to projecting and monitoring cash-flow after the buyout. Operating cash-flow increased considerably in the sample companies due to increased sales volumes, better management of working capital and stable operating expenses. All the managers/owners interviewed tended to view their goal in terms of cash-flow results and not quarterly reportable profits. They emphasised that the company value rose due to the improved operating performance, which is confirmed by the successful exits of several of the sample companies through trade sale or flotations.

G. Conclusion

In the last decade, there has been a significant increase in the number and value of LMBO transactions in the UK, spreading over to Continental Europe. The underlying micro- and macroeconomic factors that promote LMBO activity and the post-buyout performance of LMBO companies have often been the subject of discussion between LMBO practitioners and academics. This topic has been discussed by researchers in the US, the UK and Germany, the results of which are presented in this paper. The research of this study was stimulated by the above debate and the lack of research on different aspects of LMBO activity in European markets and on post-buyout performance of LMBO companies outside the US and the UK. This study investigates the effects of the different micro- and macroeconomic conditions in the UK and Germany on the development of each LMBO market, presents existing evidence on the post-buyout performance of UK and German LMBO companies under favourable economic conditions and investigates post-buyout performance of German LMBO companies under difficult economic conditions. A number of conclusions can be readily drawn from the research conducted and the evidence revealed.

The results of the first part of this research examined the difference in micro- and macroeconomic factors influencing LMBO activity in the UK and Germany. The conclusion can be drawn that these differences had a strong impact on the development of LMBO activity in the UK and Germany. There are a number of relevant factors within an economy which, when combined, create a favourable or unfavourable climate for LMBOs. The external conditions that affect the availability of LMBO opportunities can be divided into the following categories: the willingness of owners to sell, the willingness of managers to buy, the ability to complete the transfer within each country's legal and tax requirements and the availability of appropriate sources of finance. The development of the LMBO market can be impaired or retarded by discrepancies in the above factors. The external conditions in the countries under examination, the UK and Germany, feature different pressures and regulations which have to be considered in an LMBO transaction.

The opportunities for an LMBO are determined by the economic conditions and the industrial structure of the respective country. Abundant merger and acquisition activity which leads to large national and international conglomerates can increase the potential for LMBOs, as can the prevalence of many small- to medium-sized family-owned companies facing succession problems.

Economic downturns in the UK and Germany have pressured national and international conglomerates to adjust their corporate structure and to return to their core-activities, consequently to sell their non-core units or divisions in order to increase profitability. In the UK, this first took place during the recession in 1981, whereas in Germany industrial restructuring first occurred in the beginning of the 1990's. Globalisation, increasing competition and the pressure of economic downturns also pushed small- to medium-sized company owners to consider selling their companies rather than struggle through recession. These company owners were always very reluctant to sell - especially in Germany - due to the fact that such a sale could be regarded as a failure. Moreover, company owners were hesitant to sell their life's work to an outside party. The LMBO concept enabled company owners in the UK and Germany to sell their company, but keep the small- to medium-sized structure and its independence.

Management's ability to take over the company they work in depends on the structure of the company, the other bidding parties and the price. Research concerning the motive of owners to sell a company to management revealed that rather unemotional factors prevailed such as the efficiency of a sale to management and the purchase price offered.

Furthermore, potential LMBO candidates - be it divestment of conglomerates or family-owned companies - cannot become an actual LMBO target unless the managers are willing to buy and are able to raise the necessary funds. The willingness of managers to participate in an LMBO is an indication of the entrepreneurial culture in the respective countries. In the past, German managers were always thought to have less of an entrepreneurial spirit than their UK counterparts due to high remuneration packages, a desire for job security and an aversion to risk.

The evidence presented here, however, suggests that this risk averse attitude among German managers seems to have been replaced with a strong desire to manage their own company, belief in a company they manage and the wish to create wealth.

The availability of financial support for an LMBO transaction is subject to the sophistication of the financial markets in the respective country. Particularly relevant conditions here are the strength of the venture capital industry, the willingness of banks to implement new financing techniques and the number of exit channels available to realise the gains of investors and LMBO managers. The UK has a well developed venture capital industry, a strong banking industry experienced in LMBOs and an active, well-developed stock market culture. These conditions have brought about a significant increase in LMBO activity over the years.

The venture capital industry is developing strongly in Germany and many funds have been established in the 1990s. The banking sector has also recognised leveraged finance transactions as a new market niche and has established specialised departments in order to provide the expertise required in this field. Exit alternatives are of vital importance to venture capital firms to realise the return on their investments. In Germany, the development of an active stock market is still proceeding very slowly, but the 'Neue Markt', established in 1997, provides the necessary infrastructure for initial public offerings of small-to medium-sized companies by loosening their admission criteria.

Several microeconomic factors in the UK and Germany have an impact on the various take-over models available, among them the equity and liability structure. Differences in valuation regulations in the countries under examination do not allow UK companies to conceal as many 'hidden reserves' in their balance sheets as German companies. As a result, there is less step-up potential for assets in the UK, which is therefore less significant for their take-over models than in Germany.

The liability structure of UK and German companies differs greatly. Bank financing plays a much bigger role in German companies than in UK companies, which prefer external financing through securities. Due to the reliance of German companies on bank financing, banks have much more influence on the development of the LMBO market in Germany than in the UK. What's more, the governance model prevailing in German companies allows banks to have a strong impact on the decision-making process of companies.

Upon examination of the business sectors in which LMBOs occur, the research revealed that transactions frequently occurred in service sectors in the UK and Germany, followed by mechanical and instrumental engineering. This confirms the assumption that the focus of LMBO activity has changed from a tendency towards production companies with a substantial amount of tangible assets to service industry sectors with insufficient tangible assets to secure loans, but a significant cash-flow potential.

Another common factor that affects the number of LMBO opportunities available in the countries under examination is the changing attitude of owners and managers towards LMBOs. In the UK, LMBOs have always been regarded as an efficient means to restructure a company and create wealth through the remarriage of ownership and control. In Germany, on the other hand, owners and managers at the beginning of LMBO activity were very reluctant to accept LMBOs as a viable take-over form.

According to Gräper's recent research (1993), German owners are slowly changing their attitude towards LMBOs and recognise this take-over model as an opportunity to sell a company at a competitive purchase price and in a very efficient manner. The managers, on the same token, have developed a more entrepreneurial attitude, abandoning their risk-free positions and remuneration packages for the freedom to manage their company more independently and the desire to create wealth.

The legal and fiscal environment is another crucial factor for the development of an active LMBO market. In the first step here, the research presented the relationship between the existing legal and taxation regulations in the UK and Germany and the structuring goals of an LMBO.

It must be assumed that the complexity and strictness of the German legal environment - especially in terms of the 'maintenance of share capital' - was responsible for the reluctance towards LMBO transactions in the beginning. In the UK, in contrast, the exceptions to the regulations for 'financial assistance', introduced by the conservative government of Margaret Thatcher, did not conflict with the existing regulations for the maintenance of share capital.

In the second step, the research presented take-over models for UK and German LMBO transactions in accordance with the prevailing legal and tax regulations in both countries. Due to the strictness and complexity of the German legal and tax environment, the take-over models are more complex and require extensive due diligence of the legal and tax issues before the transaction can be concluded. This may have been an obstacle for several LMBO transactions at the beginning of LMBO activity in Germany.

Upon examination of post-buyout performance of LMBOs, the existing research suggests that there is a distinct improvement after a leveraged buyout. However, this evidence is insufficient to judge LMBOs in economic downturns due to the fact that most of the existing research was conducted against the background of a strong economic environment.

The next step of this study was then to investigate whether LMBOs completed in times of recession would also have the same positive impact on post-buyout performance as those completed in economic upturns. The empirical research on LMBO companies in Germany which were targets of a buyout in times of economic downturns presented evidence on post-buyout operating results in 30 LMBO companies from 1991 to 1994.

These 30 companies experienced an increase in sales, operating income (before depreciation) and operating cash-flow after the transaction. Sales performance was 7.5 percent higher in the first year and 13.3 percent higher in the second year after the buyout than before the transaction. Statistically these results were highly significant at probability levels of 0.30 and 0.011 respectively. The sales growth of LMBO companies was significantly higher than the industry average at a probability level of 0.029.

Operating income, in contrast, declined in the first post-buyout year by 14.9 percent and increased in the second year after the buyout only by 1.9 percent. However, these results were not statistically significant to reject the null hypothesis at probability levels of 0.581 and 0.359 respectively. According to anecdotal evidence of LMBO participants, operating income declined in the first year due to the allocation of resources to restructuring measures related to the LMBO. This was further confirmed by the fact that operating cash-flow volume, as opposed to operating income, increased in the first year after the buyout indicating that measures not directly related to cash, such as provisions for restructuring and lay-offs were responsible for the decline in operating income. Compared to the industry average, the operating results of LMBO companies were worse than their industry counterparts. Statistically, however, this assumption could not be confirmed.

Operating cash-flow increased in the first year after the buyout by 4.5 percent and in the second year by 33.5 percent. Statistically, however, the probability levels were insignificant at levels of 0.597 and 0.110 respectively. Compared to industry average, LMBO companies exceeded the operating income growth-rate of their industry counterparts, but this could not be statistically sustained at the probability level of 0.316.

Financial performance in the 30 sample companies after the LMBO was superior to performance before the buyouts with the exception of operating income in the first year after the buyout. Income tax savings do not appear to have been the source of the increase in wealth, as the improvement in performance was measured with the variables sales and operating cash-flow, which exclude the effects of tax generated savings. According to the anecdotal evidence of LMBO participants of some of the sample companies, LMBO managers/owners seemed to manage the company more effectively after the buyout than before. Interviews also provided evidence that the reduction of debt was a dominant goal for the owner/managers and investor/owners after the buyout. Furthermore, they confirmed that close attention was paid to projecting and monitoring cash-flows rather than concentrating on reportable profits.

The results of the 30 sample companies and the anecdotal evidence of the interviews seem to support the 'agency cost' theory with regard to free cash-flow and to debt bonding. The entrepreneurial explanation seems to provide an adequate explanation for the increase in performance of the 30 sample companies after the buyout. Owners/managers can react promptly and decisively to opportunities in the market that benefit the company and increase its value.

However, seen from a statistical point of view, the hypotheses that LMBO post-buyout performance exceeds pre-buyout performance under economically difficult circumstances could not be sustained for all assumptions. Only the development of sales could sustain the hypothesis that post-buyout performance exceeds pre-buyout performance and that of the respective industry.

With respect to operating income and operating cash-flow the statistical results provided were insufficient to sustain the hypotheses that post-buyout performance exceeds pre-buyout performance and the industry average also in times of economic recession.

Recent developments indicate that there is significant growth potential for the German LMBO market for the following reasons: the entry of national and international investors and venture capital firms, the growing public interest in well-known LMBO transactions, the growing need for industrial restructuring and the increasing succession problems among German 'Mittelstand' companies. Furthermore, the establishment of favourable external conditions for LMBOs in Germany based on the successful UK example will create an favourable environment and encourage the continual development of the German LMBO market.

Specific jargons and abbreviations

Acquisition

Purchase of a company

Agent

Natural or legal entity who acts on behalf of a principal.

Asset-backed transactions

Transactions where the assets of a company are the only security for the financing.

Asset deal

Purchase of a company through transfer of single assets.

Break-up value

Value of the company in the case of liquidation

Business Plan

Plan which enables potential investors an estimation of the potential and the risks of the target company.

Business Risk

Risk existing in some business areas.

Cash-flow lending

Financing on the basis of budgeted cash flows.

Corporate finance

Financing of corporate transactions and equity relevant financial services.

Corporate restructuring

Restructuring of a purchased target company

Covenants

Conditions given by banks at the issue of a credit.

Disinvestment

Disposal of certain company parts or subsidiaries.

Exit

Date, where the financiers dispose of their participation on the buy-out.

Gearing

Ratio between equity and debt.

Going Concern value

Value of a company under going concern aspects.

Going Private

Exclusion of the public concerning equity participation.

Going Public

Opening to the public concerning equity participations.

Goodwill

Immaterial value of the company.

Hostile Take-over

Take-over of a (listed) company against the consent of the present management.

Hidden reserves

Difference between current cost and historical cost value of assets

ICTA

Income and corporation taxes act

Junior Debt

Unsecured, subordinated debt with equity character, whose repayment rely entirely on the cash flow power of the company.

Junk bonds

Highly speculative bonds with low rating.

Leveraged buy-out (LBO)

Purchase of a company, subsidiary or division, primarily for cash, that is financed primarily by debt. The company's cash generating capacity is the source of debt service. The assets of the company are often pledged as collateral, providing back-up protection for the lenders. Typically, the thin layer of equity is held by the investment banking firm sponsoring the transaction, other third-party investors and a management group.

Leveraged Management buyout (LMBO)

Special form of leveraged buy-out in which the current management of the acquired corporation holds a significant equity stake in the company after the buy-out is completed. For better understanding and clarification this form of transaction will be referred to as LMBO in the study.

Leveraged Management buyin (LMBI)

A leveraged buy-out in which an outside management acquires a significant equity stake in the target company and where the transaction price is financed mainly be debt.

Mergers & Acquisitions

Definition for company mergers and acquisition and services connected with it.

Mezzanine

Risk capital used at the purchase of a company which lays between equity and senior debt, taking the form of subordinated and unsecured debt.

Present Value

Value of the future returns of a company, discounted at a propriate interest rate.

Senior Debt

Ordinary, not subordinated debt.

Share deal

Purchase of a company through transfer of shares.

Spin-off

Disposal of a unit of a company.

Target

Company which is the object of a take-over.

Trade sale

Disposal of a company to another company.

Venture capital

Risk capital from certain institutions in order to finance certain projects.

**Leveraged Management Buyouts in Germany:
Some descriptive background**

Most significant LMBOs in Germany from 1981 - 1989

Company	Sales	Price	Type (in Mil. DEM)	Year
1. Knorr Bremse	1.000	n.a.	LMBO	1985
2. Lancaster	900	700	LMBO	1990
3. Lignotock GmbH	500	540	LMBO	1989
4. Lowe Opta	260	n.a.	LMBO	1985
5. Ex-Cell-O	200	120	LMBO	1987
6. Wallace & Tiernan	200	70	LMBO	1989
7. Heidemann Werke	150	n.a.	LMBO	1987
8. Kaiser Kabel	145	80	LMBO	1990
9. Hein Gericke	110	n.a.	LMBO	1988
10. Leifeld Gruppe	100	n.a.	LMBO	1988

(Source: Karsunky, 1992)

Most significant LMBOs from 1990-1996

Company	Sales (in Mil. DEM)	Price	Type	Year
1. AEG	n.a.	700	LMBO	1996
1. Tarkett	n.a.	650	LMBO	1994
2. Empe	n.a.	235	LMBO	1995
3. Bran & Luebbe	n.a.	210	LMBO	1993
4. BBG/Wilhelm Weber	n.a.	175	LMBO	1996
5. Hofmann Menue	n.a.	125	LMBO	1996
6. Huss Holdings	n.a.	100	LMBO	1996
7. Deutsche Seereed. Rostock	1.000	n.a.	LMBO	1993
8 Badische Stahlwerke	725	n.a.	LMBO	1991
9. Friedrich Deckel AG	636	n.a.	LMBO	1991
10. LVW AG	530	n.a.	LMBO	1993
11. Elpro AG	450	n.a.	LMBO	1992
12. Georg Lingenbrink	350	173	LMBO	1993
13. Josef Riepl Bau AG	316	n.a.	LMBO	1991
14. Aluminium Rheinf.	278	n.a.	LMBO	1993
15. Aluminium Giess. Villingen	200	170	LMBO	1991
16. Käßbohrer Geländefahrzeug	n.a.	162	LMBO	1994
17. Wesumat Fahrzeug- waschanlagen	n.a.	71	LMBO	1994
18. Infox	n.a.	71	LMBO	1995

(Source: Amdata, Acquisitions Monthly, Initiative Europe 1997)

LMBOs in Germany from 1990-1994 by number and value
LMBOs by number

1980-1987	53
1988	36
1989	25
1990	36
1991	27
1992	51
1993	44
1994	59
1995	74
1996	62

(Source: Initiative Europe, European Buyout Review, 1997)

LMBOs by value
Total value/average

Estimated value (GBP Mil.)	1996	1995	1994	1993	1992	1991	1990
Total value (GBP Mil.)	1.148	540	733	397	322	224	292
Average value (GBP Mil.)	18,5	7,3	12,4	9,0	6,3	8,3	8,1

(Source: Initiative Europe, European Buyout Review 1997)

Value range of LMBOs

% of total number	1996	1995	1994	1993	1992	1991	1980-1990
Less than GBP 5 Mil.	36,8	35,0	29,6	52,4	50,0	33,3	51,7
5 - 10 Mil.	13,2	15,0	18,5	19,0	20,0	25,0	16,7
GBP 10 - 25 Mil.	23,7	25,0	37,0	14,3	10,0	33,3	13,3
over GBP 25 Mil.	26,3	25,0	14,8	14,3	20,0	8,3	18,3
Total	100	100	100	100	100	100	100
Sample size	38	20	27	21	10	12	60

(Source: Initiative Europe, European Buyout Review 1997)

LMBOs from 1981 - 1989 due to succession problems

Target company	Activity	Year
1. Knorr Bremse	Automotive parts	1985
2. Grünbeck GmbH	Water treatment	1988
3. Sachtler	Manufacture of tripod heads	1988
4. Brandt	Textiles	1988
5. Hein Gericke	Motor bicycles and comp.	1988
6. Leifeld Gruppe	Machine tool manufact.	1988
7. Heidemann Werke	Automotive components	1988
8. Brause	Stationery	1989
9. Ursula Neuhauser	Textiles	1989
10. Königsberger	Manufacturer of cloth	1989

(Source: Karsunky, 1992)

LMBOs from 1990 - 1996 due to succession problems

Target company	Activity	Year
1. AS Creation	Manufacture of wallpaper	1990
2. Bela Muehle	Supply of animal feed	1990
3. Floraprint International	Printing of hortic. catalogues	1992
4. Koelbel	Mail order supplier	1992
5. Kabel Vision	Cable Television	1993
6. Goetz & Mueller	Printing Services	1993
7. Burton Gruppe	Production of refractory mat.	1994
8. Passport Modevertrieb	Knitwear	1994
9. Empe	Manufact. for autom. industr.	1995
10. Infox	Marketing for travel industry	1995
11. Techem	Sale measurement systems	1996
12. Blaurock	PVC windows and shutters	1996

(Source: Initiative Europe/Europe Buyout Review 1997)

LMBOs from 1981 - 1989 due to divestments

Mother company	Divestment	Reason	Year
1. Philips	Dilektra GmbH	New group strategy	1981
2. MBB	Piper	High losses of Piper	1982
3. Gildemeister	Pittler AG	New group strategy	1984
4. Philips	Loewe Opta GmbH	Anti-trust law	1985
5. Hüppe GmbH	Jaso Küchenmöbel	High losses of Jaso	1986
6. Thomson	Europart GmbH	New group strategy	1987
7. Textron	Ex-Cell-O	New group strategy	1987
8. Hoechst AG	Goldbach GmbH	New group strategy	1988
9. Ransburg Corp.	Statomat GmbH	New group strategy	1989
10. Hoogovens	Kaiser Kable	New group strategy	1989

(Source, Karsunky, 1992)

LMBOs from 1990 - 1996 due to divestments

Mother company	Divestment	Reason	Year
1. John A. Benckiser	Benckiser Water Treatment	n.a.	1990
2. Robannic Group	Vemag Maschinenbau	n.a.	1991
3. Everest & Jennings	Ortopedia	n.a.	1991
4. Bergeman	Pfister	n.a.	1991
5. Maxwell	Rushware	n.a.	1992
6. Tetra Laval	Bran & Luebbe	n.a.	1993
7. FAG Kugelfischer	Lukas Hydraulik	n.a.	1993
8. Stora	Tarkett	n.a.	1994
9. Karl Käßbohrer	Käßbohrer Geländefahrzeug	n.a.	1994
10. Henkel	Mattes & Weber	n.a.	1994
11. Schiele Industriew.	Daimler Benz Aerospace	n.a.	1995
12. Colortronic GmbH	K-Tron International Inc.	n.a.	1995
13. AEG	AEG	n.a.	1996
14. Hofmann Menue	Grand Met. plc.	n.a.	1996

(Source: Initiative Europe, European Buyout Review 1997)

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